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THE WILD RICE GATHERERS OF THE UPPER LAKES

A STUDY IN AMERICAN PRIMITIVE ECONOMICS

BY

ALBERT ERNEST JENKS, Ph. D.,
Assistant Ethnologist
BUREAU OF AMERICAN ETHNOLOGY, SMITHSONIAN INSTITUTION, WASHINGTON, D. C.

A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY,
UNIVERSITY OF WISCONSIN, 1899

EXTRACT FROM THE NINETEENTH ANNUAL REPORT OF THE
BUREAU OF AMERICAN ETHNOLOGY

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ALBERT ERNEST JENKS

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THE WILD RICE GATHERERS OF THE UPPER LAKES

By Albert Ernest Jenks

INTRODUCTION

This memoir was begun with the hope that eventually other somewhat similar studies of American primitive economics might be made which would throw light from an almost new direction on the culture status of the North American Indians. As the economic motive is so dominant among the foremost peoples of to-day, its ascendence must mark a new stage in the measurement of culture. It has been very interesting to find, through this study, three distinct steps in the development of the motive for production, beginning with myth-founded belief and rising to an incipient state of economic consideration. For example, the Menomini Indians absolutely refuse to sow wild rice—their motive is simply that of belief; the Dakota Indians do not sow the grain, but apparently have no myth-founded scruple against it; while among the Ojibwa no such belief seems likely ever to have existed, for they sow the grain from purely economic motive, though such motive is not so dominant as among many maize-producing tribes.

This study has helped to elucidate the culture position of the tribes which used wild rice by showing the motives for production, the effect on the Indian of such quantities of spontaneous vegetal food, the property-right in the rice beds, and the division of labor. It has given a detailed picture of aboriginal economic activity which is absolutely unique, and in which no article is employed not of aboriginal conception and workmanship. It has thrown light upon the almost constant warfare between the Dakota and Ojibwa Indians for two hundred and fifty years. It has shed light also upon the fur trade in a territory unexcelled in the richness of its furs, yet almost inaccessible had it not been for the wild rice which furnished such nourishing and wholesome support to the traders and hunters. It also shows that much of history is wrapped up in native geographic names; and it is hoped that it may help to promote the preservation and retention of such terms. It has suggested new lines of manufacture.

I am indebted to Professor Richard T. Ely, director, and to Professor William A. Scott and Professor Frederick J. Turner, of the school of economics, political science, and history, of the University of Wisconsin, at Madison, where this study was made, for the suggestions and assistance usually given in the preparation of such a thesis.

Most of the historical data was collected in the library of the Wisconsin Historical Society, at Madison. To Mr Reuben Gold Thwaites, secretary and superintendent, and to other members of the library staff, I owe much. By unusual favors and almost constant service they have greatly lessened my labors.

I am also under obligation to Professor F. W. Woll, chemist of the experiment station at Madison, for his painstaking analysis showing the nutritive value of wild rice.

A part of the data was collected by correspondence, and I gladly take this opportunity to thank those gentlemen whose names appear in the subjoined list of correspondents.

But most of all I am indebted to Professor W J McGee, ethnologist in charge of the Bureau of American Ethnology, and to Dr Otis T. Mason, of the United States National Museum, both of whom suggested the subject of this study. Through correspondence and personal conferences Professor McGee has rendered valuable assistance. It is to him also that I owe the opportunity of visiting many wild rice producing Indians in the autumn of 1899, when I obtained additional data and the illustrations for this study.

I am aware that the text of this memoir carries a greater burden of facts than is necessary to prove the points of the thesis. Had the study been published simply as a doctor's thesis, many facts now in the text would have been omitted, or put in footnotes or appendices.

Chapter I

BOTANY

Scientific Names

During the early history of the science of botany the wild-rice plant, with which this memoir deals, received many scientific names. It is today known as *Zizania aquatica*, and is a grass belonging to the order *Gramineæ*, to the lesser tribe *Oryzeæ*, to the genus *Zizania*, and to the species *aquatica*.[1] The word "zizania" appears in the New Testament in the Gospel according to Matthew, xiii, 25, 26, 27, 29, 30, where it is supposed to refer to lolium. The word is translated "tares," and the plant is there spoken of as growing in farming soil among the wheat.[2] However, the plant under present discussion is aquatic, and there is no likeness between the two except in name.

The following table presents a list of various scientific synonyms by which the plant *Zizania aquatica* has been known:[3]

Zizania—Gronovious, ex Linneus, Gen. ed., vol. II (1742), p. 863.
* *Gramineæ*—Bentham and Hooker, f. 3, p. 1115.
* *Elymus*—Mitchell, in Act. Phys. Med. Acad. Nat. Cur., vol. VIII (1748), appendix, p. 210.
* *Fartis*—Adams, Fam., vol. II (1763), p. 37.
Hydropyrum—Link; see Index Generum Phanerogamorum (1888), p. 468.
Melinum—Link, op. cit.
Zizaniopsis—Döll et Aschers; see Index Generum Phanerogamorum (1888), p. 468.
Zizania aquatica—Linn., Mant., p. 295.
Zizania clavulosa—Micheaux, Fl. Bor. Am., vol. I (1803), p. 75.
Zizania effusa—Herb. of Linn. (so marked, but not by Linn.), Jour. Linn. Soc., vol. VI (1862), p. 52.
* *Zizania latifolia*—Turczaninow, Bull. Soc. Nat. M. S. (1825) 105; vol. XXIX (1856), number 1, p. 2.
Zizania palustris—Linn., Mant., vol. II (1771), p. 295.

The *Hydropyrum esculentum* of Link is the same as *Zizania aquatica*. It is asserted[4] that *Z. latifolia* of Japan and eastern Russia is identical with the North American *Z. aquatica*, but Prof. J. Matsumura, of the Imperial University, Japan, writes that the American plant is identical with a plant growing in Japan, Formosa, and eastern China which bears the name *Zizania aquatica*.[5]

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[1] F. Lamson-Scribner in Bull. 7 of the Division of Agrostology, U. S. Department of Agriculture, revised ed., Washington, 1898.
[2] William Darlington, Agricultural Botany, New York, 1847, p. 207.
[3] Those marked * have not been verified; they are from secondary sources.
[4] Bentham in Journal of the Linnæan Society, vol. XIX (1882), p. 54.
[5] J. Matsumura, letter, Dec. 16, 1898.

In America the plant under present consideration is ordinarily known as "wild rice," a term similar to the common names of several other American grasses, thus necessitating some care in distinction. The greatest confusion will arise, doubtless, with *Zizania miliacea*, the only other American plant of the same genus. This latter plant is very common in the brackish waters of the southern states. It is sometimes called "prolific rice," and is said to grow in shallow waters in Ohio and Wisconsin as well as in the south.[1] Some confusion may arise also with plants of the same tribe, such as "little mountain rice" (*Oryzopsis exigua*), a slender perennial found among rocks and canyons and on mountain tops in Montana, Wyoming, Utah, Oregon, and Washington;[2] "white mountain rice" (*Oryzopsis asperfolia*), also a slender perennial, found in the woods in Newfoundland, in eastern United States from Massachusetts and New Jersey to Minnesota, and in the Rocky mountains from British Columbia to New Mexico;[3] "black mountain rice" (*Oryzopsis melanocarpa*), also a perennial, which is reported as growing in open rocky woods in Quebec and Ontario, and to the south as far as Delaware, Kentucky, Missouri, and Minnesota;[4] "small-flowered mountain rice" (*Oryzopsis micrantha*), a slender, erect perennial growing in woods, along river bluffs, and on mountain sides from South Dakota to Nebraska, Colorado, New Mexico, and Arizona;[5] and *Oryzopsis cuspidata*, which grows in dry prairies about Fort Robinson, Nebraska.[6]

Popular Synonyms

In America there are four chief sources from which popular synonyms are derived for the plant under consideration, viz, the French, English, Algonquian, and Siouan languages. Other synonyms arise through dialects and faulty spelling, and still others through ignorance of a foreign language. Below is presented a list of 60 synonyms for the plant in America. Only one reference for each name is given:[7]

Ah-wuh-kah-ne-me-no-min (Ojibwa of Grand Traverse bay)—Schoolcraft, Indian Tribes, vol. II, p. 463.

American rice—Nuttall, Genera of North American Plants, vol. II, p. 210.

Avena fatua—Alex. Henry, Travels, p. 241.

Blackbird oats.

Canadian oats.

Canadian rice—Smith, Dictionary of Economic Plants.

Canadian wild rice—Cyclopedia; or a New Universal Dictionary of Arts and Science, vol. XXXIX.

---

[1] Chas. L. Flint, Grasses and Forage Plants, Lincoln, 1890, pp. 29–30.

[2] Lamson-Scribner, American Grasses, I, p. 113, in Bull. 7 of the Division of Agrostology, U. S. Dept. of Agriculture, revised ed.

[3] Ibid., p. 111.

[4] Ibid., p. 110.

[5] Ibid., p. 114.

[6] Bessey and Webber, Grasses and Forage Plants, Lincoln, 1890, p. 104.

[7] See the bibliography for the complete titles of the references.

ESPECE DE SEIGLE DE MARAIS—Relations des Jésuites, 1671, Quebec, 1858, vol. III, p. 39.
FALS AVOINES—Flint, Geography and History, vol. I, p. 84.
FALSE OATS—Neill, History of Minnesota, p. 111.
FATUIS AVENA—Flint, op. cit., p. 84.
FAUSSE AVOINE—Relations des Jésuites, 1670, Quebec, 1858, vol. III, p. 92.
FIELD RICE—House of Representatives, 54th Cong., 1st sess., Report 268, p. 7.
FOLL AVOIN—Robt. Dickson in Wisconsin Historical Collections, vol. XI, p. 292.
FOLLE—Wisconsin Fur Trade Accounts, vol. IV, 1820–21, manuscript 172 (Wisconsin Historical Society manuscript collection).
FOLLE AVOINE—Flore Canadienne, Provancher, vol. II, p. 665.
FOLLS AVOINE—Morse, Report to Secretary of War, appendix, p. 34.
FOLS AVOIN—Coues, Pike, vol. I, p. 76.
HAFERREIS—Dietrich und König, Futtermittel, Zweite Auflage, Berlin, 1891, I, p. 585.
INDIAN OATS.
INDIAN RICE—Lamson-Scribner, Useful and Ornamental Grasses; U. S. Dept. of Agric., Div. of Agros., Bull. 3, p. 95.
MAD OATS—Kohl, Travels, vol. II, p. 46.
MALOMIN—J. Long, Voyages and Travels, p. 205.
MA-NO-MEN—Wisconsin Historical Collections, vol. XIII, p. 443.
MANO′MĬN—Ojibwa Indians on Lac Courte Oreille reservation, Wisconsin, 1899.
MAN-OM-IN—Palmer, Food Products of the North American Indians; Rept. Dept. of Agric., 1870–71, p. 422.
MANOMINAN—Keating, Narrative of an Expedition, vol. II, p. 459.
MANORRIN—Lamson-Scribner, Useful and Ornamental Grasses.
MARSH RICE (a kind of).
MENO′MÄ—Hoffman, Menomini Indians, p. 324.
MENOMEN—Samuel R. Brown, Western Gazetteer, p. 267.
ME-NO-MAW—Pokagon, letter, Nov. 16, 1898.
MENOMENE—Flint, op. cit., p. 84.
MENOMON—J. Long, op. cit., p. 205.
MO-NO-MIN—Schoolcraft, op. cit., vol. II, p. 463.
MON-O-MIN—Ibid.
MONOMONICK—New York Colonial Documents, vol. IX, p. 161, note 6.
MUHNOOMIN—Edw. F. Wilson, Ojebwa Language.
MUN-NO-MIN—Schoolcraft, op. cit., vol. II, p. 463.
MUS-CO-SE-ME-NAH—Harmon, Journal, p. 394.
OATS—Radisson, Voyages, p. 207.
PSE—Keating, Narrative, vol. II, p. 459.
PSHU—Edw. Palmer, op. cit., p. 422.
PSIN—Schoolcraft, op. cit., vol. I, p. 187.
PSI′NA—Winnebago Indians near Elroy, Wisconsin, winter 1898–99.
RICE—Schoolcraft, op. cit., vol. I, p. 187.
RIZ DU CANADA—Flore Canadienne, vol. II, p. 665.
REED—Lamson-Scribner, Useful and Ornamental Grasses, p. 95.
SEE-NAH—Henry Merrell, Manuscript Winnebago Dictionary.
SI^{N}′-UKE′I^{N}—Dorsey, Omaha Sociology, Third Annual Rept. Bur. Ethnol., 1881–82, p. 308.
SQUAW RICE—White inhabitants, Hayward, Wisconsin, 1899.
STANDING CORN—Ellis, Recollections, p. 265.
TUSCARORA—Flore Canadienne, vol. II, p. 665.
TUSCARORA RICE—Lamson-Scribner, Useful and Ornamental Grasses, p. 95.
WASSERHAFER—Jahresbericht über die Fortschritte der Agrikulturchemie, Fünfter Jahrgang, 1862–63, p. 59.

WASSERREIS—Ibid, p. 59.
WATER OATS—Lamson-Scribner, op. cit., p. 95.
WATER RICE—Ibid, p. 95.
WILD OATS—Coues, Expedition of Z. M. Pike, vol. 1, p. 344.
WILD RICE—Lamson-Scribner, op. cit., p. 95.

The letter from Professor Matsumura, above referred to, enables me to add a short list of synonyms for the plant and seed from Japan, China, and Formosa, as follows:

CHIMAKI-GUSA (thousand-rolling-grass)—Japan.
KATSUBO (water-reed)—Japan.
KOMO-GAYA (covering-grass)—Japan.
KOMO-GUSA (matting or covering-grass)—Japan.
MAKI-GUSA (rolling-grass)—Japan.
MAKOMO (water-reed)—Japan.
KAU-PEH-SUNG—Formosa.
KANSU (the name for the young shoot)—China.
HANAGATSUMI (flower-water-reed-fruit, i. e., the seed or grain)—Japan.
KATSUMI (water-reed-fruit, i. e., the seed or grain)—Japan.
MAKOMO-NO-MI (fruit of the water-reed, i. e., the seed or grain)—Japan.

ETYMOLOGY OF "MANO'MĬN"

Of the American synonyms given above, the larger number follow the norm *mano'mĭn*. This is the Algonquian word for wild rice, and it is chiefly through this term that the plant has influenced geographical names in America. The word is a compound of the adjective and adverbial form *me-no*, meaning "good," "right," "well," and of the noun form *min*, meaning "berry." *Me-no* never changes its form in the language, but is used quite variously, as *me-no au-ne-ne*, "good man"; *me-no au-yaw*, "he is getting well." This term and *maw-tchi*, or *mau-tchi*, meaning "bad," and used exactly as is *me-no*, are the most common adjectives in the Ottawa and Ojibwa languages.[1] The form *min* is used in a great many words which denote berry or fruit, as in *au-zhaw-way-min* (beechnut), *ane-she-min* (apple), *shaw-bo-min* (gooseberry), *me-daw-min* (maize), and *mis-kou-min* (red raspberry).[2] Among the Algonquian tribes of New England, kinsmen of the Ottawa and Ojibwa Indians, *min* or *meen* is the word for berry or maize, *min* being the general term for berry.[3] Thus *mano'mĭn*, the term by which wild rice first came to be known among the white settlers of the Northwest—the French at Green bay, Wisconsin—is the Algonquian word for the very suggestive and common-sense term "good berry," or "good fruit." The French named the plant *folle avoine* (wild oat, mad oat, or fool oat), and this term and its various faulty renditions are frequently applied to

[1] See Wilson, Ojebwa Language, p. 21; Blackbird, History of the Ottawa, pp. 111, 112.
[2] Blackbird, op. cit., p. 122; see also Wilson and Baraga.
[3] Barratt, Indian of New England, p. 19.

the plant in early accounts of the Northwest. Marquette once called it *fausse avoine* (false oat), and the Latin *avena fatua* was doubtless applied to the plant because of the term adopted by the French. It is difficult to say what the Siouan norm is, but probably it is *psin*, which is often followed by some slightly accented vowel, as in the word *psina*.

Scientific Description

The genus *Zizania* comprises two species, and is well characterized by the unisexual spikelets in an androgynous panicle, each having two glumes, and the males having two stamens. The plant ordinarily grows from 5 to 10 feet high, with a thick, spongy stem and an abundance of long, broad leaves. The chief mark of distinction between the two species is that the *miliacea* bears its male and female flowers intermixed on its fruit head, while the *aquatica* bears its female flowers near the top, where the cylindrical panicle, from 1 to 2 feet long, is quite appressed, and its male flowers on the more widely spread lower branches of the panicle. The glumes or husks of the female or fertile flowers are about an inch long and are armed with an awn or beard usually of about the same length as the husk, but at times of twice its length. The grain, which is inclosed within the glumes, is a slender cylindrical kernel, varying in length from almost half an inch to nearly an inch, and is of dark slate color when ripe. The plant is an annual, and grows in either fresh or brackish waters from a bed of mud alluvium.

Popular Description

Wild rice is one of the most beautiful aquatic single-stem plants in America. The grain is shed into the water when it ripens in the autumn, and lies in the soft ooze of alluvial mud at the bottom of a lake or river until spring, when it germinates and grows rapidly to the surface. Text-books have frequently called the plant perennial. The old stalks die down below the surface of the water before the time arrives for the new ones to appear, so the inference has been made that they all come from the same root; but the plant is an annual, growing from new seed each year. It was called a biennial by the Detroit Gazette December 24, 1820.

Early in June the shoot appears at the surface of the water and at once begins to prepare its fruit head. At about this stage of its growth it has been described as follows:

> When seen from a distance, they [the rice beds] look like low green islands on the lakes; on passing through one of these rice beds when the rice is in flower, it has a beautiful appearance with its broad grassy leaves and light waving spikes, garnished with pale yellow green blossoms, delicately shaded with reddish purple, from beneath which fall three elegant straw-colored anthers, which move with every breath of air or slightest motion of the waters.[1]

[1] Catherine Parr Traill, Backwoods of Canada, p. 237.

The plant blossoms in June, and by September the seeds are mature. The fruit heads are mostly of a pale green color with a tinge of yellow, but at maturity they generally acquire a cast of purple.[1] Rice beds have been described as resembling fields of wheat, of canebrake, and of maize. At maturity the stalks range from 2 to 12 feet in height above the water, and they also vary much in thickness. Their total length depends largely on the depth of the water in which they grow, as well as on the fertility of the soil.

This latter cause affects also the size and strength of the stem. The stalks are most frequently from 5 to 8 feet in length, but they are also found as long as 16 or 20 feet. They grow up through water varying from 12 inches to 10 or 12 feet in depth. Mr L. A. Paddock, of Grass lake, Lake county, Illinois, describes the plant in the most luxuriant growth which it is believed to acquire in America. His description is unique also in the fact that, at Grass lake, after the plant grows to the surface of the water, and until it is 2 or 3 feet long, it lies flat upon the surface. Then as each leaf enlarges and gains strength the stalk straightens up (others have said that if once the young shoot gets down onto the water, it can not possibly rise, but dies without fruitage). By the middle of July the stalks are about 8 feet high. At that time from the center of each stalk a long slender shoot grows to the height of about 4 feet above the topmost leaf. This shoot bears the fruit head. The stalk grows an inch or more in diameter, and to the height of 10 or 12 feet above the water. It grows to this, its greatest height, in water 1 foot deep, but it will grow and mature in water 8 feet in depth, in which case it rises about 4 feet above the surface. The roots are so strong and matted that they will support the weight of a man walking upon the mass in shallow water.[2]

Natural Enemies

An annual plant clearly seems to grow not for itself, but for its successors. Anything which destroys the seeds, even though they have reached maturity and are ready to grow, is as much an enemy of the species as though the parent plant had been destroyed. However, inasmuch as the plant may produce, say, a hundred offspring, the destruction of the plant before the maturity of its seeds may be a hundredfold more serious than the destruction of a mature seed.

It will later be seen that the Indian, by his use of the wild-rice seed, is a great enemy of the plant, for it will be shown that the plant, unless it is artificially sown, is gradually being extinguished in such beds as are continually used. Waterfowl in countless numbers feed upon the grain at its maturity. In fact, it is so choice a food for duck, geese, teal, and other waterfowl that it is now quite frequently sown by gun

[1] Elliott Coues in Botanical Gazette, Dec., 1894, p. 506.
[2] Paddock, letter, January 20, 1899.

clubs in mud-bottomed waters in hunting preserves to attract such fowl for shooting.[1]

Many descriptions are given of clouds of blackbirds, redwing blackbirds, and ricebirds which subsist on the grain during and immediately after its milk stage.[2] Rails, pigeons, quails, herons, cedar birds, woodpeckers, and many other birds also consume the grain by feeding from the heavy stalks.[3]

Caterpillars have been known to destroy an entire crop of wild rice in the neighborhood of Rainy river.[4] Mr Pither mentions a worm which eats into and destroys the grain in Manitoba, Canada.[5] This is probably the "maggot," which is the larva of the water weevil (*Lissorhoptrus simplex*). The "maggot" is a very small white legless grub; it destroys the plant by working in its roots, while a beetle, the water weevil just cited, eats the leaves of the plant.[6]

A fungus, *Entyloma crastophilum*, Sacc.(?), works in the sheath of the grain,[7] while *Claviceps sp.* also works on the plant,[8] and in Japan the fungus *Ustilago esculenta* attacks the shoot.[9]

A fungus, *Claviceps purpurea*, occurs quite commonly on the grain in northern Wisconsin, where the Indians speak of it as "frozen rice." In its early stage it consists of a profuse growth of mycelium in the tissue and on the surface of the young ovary. The product is a compact, horn-shape, dark body called the sclerotium, which occupies the position of the displaced ovary. The sclerotium lies dormant during the winter, and in the spring germinates by forming tiny spores which free themselves, and begin growth in the tissue and in the ovary, as is told above.[10]

Storms, frosts, and floods cause great, doubtless the greatest, damage to wild rice.[11]

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[1] See chapter VI for the consumption of wild rice by these game birds.

[2] The most common of these blackbirds, all of which are fond of wild rice, are the purple grackle (*Quiscalus quiscula*), the boat-tailed grackle (*Q. major*), and the rusty grackle (*Scolecophagus carolinus*). The redwing or swamp blackbird (*Agelaius phœniceus*) forms large migratory flocks in the autumn in all of the Northern states, and becomes very destructive to the grain. The ricebird, reedbird, or bobolink (*Dolichonyx oryzivorus*) is the natural bird enemy of wild rice, and is found in countless numbers in all—both brackish and fresh water—wild-rice marshes during the autumn.

[3] Pither, letter, December 5, 1898; McKenney, Memoir, vol. II, p. 104; Hind, Narrative, vol. I, p. 118. The sora rail (*Porzana carolina*), the yellow rail (*P. noveboracensis*), and the black rail (*P. jamaicensis*) feed upon wild rice. The sora rail is especially common in fresh-water wild-rice marshes. For references to great numbers of waterfowl in Minnesota, see Schoolcraft, Indian Tribes, vol. I, pp. 186–187, vol. IV, pp. 193–194. For the waterfowl on Fox river, see Brown, Western Gazetteer, pp. 252, 261; also Schoolcraft, Summary Narrative, p. 183, and Featherstonhaugh, Canoe Voyage, vol. I, p. 180.

[4] See chapter VI (page 1100).

[5] Pither, op. cit.

[6] L. O. Howard, Insects Affecting the Rice Plant, in Rept. of the Commissioner of Agric. for 1881 and 1882, Rept. of the Entomologist, pp. 127, 138.

[7] Wm. Trelease, Preliminary List of Wisconsin Parasitic Fungi, in Wis. Acad. Sci., Lit., and Arts, vol. VI, number 258; Madison, 1885, p. 139.

[8] Ibid., number 66, p. 115.

[9] Matsumura, letter, December 16, 1898, with reference to Henning's Hedwigia, Band XXXIV, 1895, p. 10.

[10] Lucius E. Sayre, A Manual of Organic Materia Medica and Pharmacognosy, etc.; Philadelphia, 1895, p. 439.

[11] See chapter VI. Very little scientific attention has been given to *Zizania aquatica;* consequently the present treatment of its enemies is scanty. Answers to letters of inquiry lead to the conclusion that more careful attention will be given it in the near future.

Chapter II

HABITAT

Introduction[1]

Zizania aquatica grows in North America from about latitude 50° on the north to the Gulf of Mexico on the south, and from the Atlantic ocean to the Rocky mountains. In Manitoba it extends farther northward than 50° in the Winnipeg drainage, and in Ontario toward Hudson bay. It grows abundantly in the brackish, almost stagnant, waters of the Atlantic and Gulf states, and along the sloughs of Mississippi river from its headwaters as far south as the state of Mississippi; indeed it doubtless occurs along the entire course of this river. It fringes the north shore of Lake Ontario, the northwest, west, and southwest shores of Lake Erie, Georgian bay of Lake Huron, the shore of Lake Huron south of Georgian bay, St. Clair lake, and Green bay of Lake Michigan. Besides growing in these great waterways, it flourishes in countless small lakes, ponds, and streams in the eastern half of the United States. It is especially abundant in the region which this memoir designates the "wild-rice district."[2] In fact, the plant is quite common in the United States east of the Rocky mountains, and in Canada as far north as latitude 52°, in lakes, ponds, and slow-flowing streams which have an alluvial bed. Nowhere will it grow in water having a sand or clay bed, or in swiftly flowing streams.

Habitat by States

In this section is presented the wild-rice habitat in the various states so far as data could be collected (see plate LXVI).

Alabama. Common in the middle section along streams (letter of P. H. Mell, Auburn, Alabama, May 1, 1899).

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[1] In the preparation of this chapter text-books on botany have been of little or no assistance. They have very generally given the habitat of *Zizania aquatica* in such indefinite language as the following: "Common from Nova Scotia to Florida and west to Minnesota." For the material of this chapter correspondence has been conducted with college and university teachers of botany and with directors of experiment stations in most of the commonwealths of the United States and Canada. The effort has been to gather data from each section so that a fairly representative habitat may be described. Perhaps the most striking result of the investigation is that which shows how limited the knowledge of some of our economic plants is, and that, too, in states in which they are common. It is to be hoped that more attention will be given to a systematic study of our economic plants.

Prof. J. W. Harshberger presents the following reasons for the study of ethno-botany, a term which well might be ethno-economic-botany: It aids in elucidating the culture-position of the tribes which used the plant; it helps in deciding the ancient trade routes; and it suggests new lines of manufacture to-day.—Harshberger, The Purposes of Ethno-botany, Botanical Gazette, March, 1896, p. 146 et seq.

[2] See chapter VI. This wild-rice district is Wisconsin (except its southwestern part) and a part of eastern Minnesota.

Arizona. Not known (letter of J. W. Toumey, Tucson, Arizona, December 7, 1898).

Arkansas. Not in an extensive collection made by Prof. F. L. Harvey (letter of Jerome McNeill, Fayetteville, Arkansas, December 21, 1898). Charles Pickering says (History of Plants, Boston, 1879, p. 772) that Nuttall observed it along the Arkansas river. It also occurs along the Mississippi.

California. Not known (letter of J. Burt Davy, Berkeley, California, December 6, 1898).

Colorado. Not known; it was twice introduced but failed to grow (letter of C. S. Crandall, Fort Collins, Colorado, December 12, 1898). However, the Indians gathered it near Denver in 1872.

Connecticut. Common near New Haven (letter of Alex. W. Evans, New Haven, Connecticut, January 3, 1899). It grows also in the brackish coastal marshes which are submerged most of the time, and also along Connecticut river, as at Essex.

Delaware. Catalogued by Tatnall as being "very common" in "ditches and muddy banks of streams" in Newcastle county (letter of W. H. Bishop, Newark, Delaware, December 12, 1898). Featherstonhaugh (A Canoe Voyage up the Minnay Sotor, London, 1847, vol. I, p. 180) says it is very common near Newport. Lamson-Scribner (Useful and Ornamental Grasses, p. 95) asserts that it is abundant in Delaware river below Philadelphia, where it is always called "the reeds."

District of Columbia. Abundant along the Potomac, covering areas of many acres (letter of F. Lamson-Scribner, Washington, April 25, 1899).

Florida. Very abundant. It occurs in deep ponds in Columbia and Suwannee counties. "I think I have also seen it in Orange, Lake, and Sumter counties, together with several others" (letter of P. H. Rolfs, biologist and horticulturist, Florida Agricultural College and Experiment Station, Lake City, Florida, December 10, 1898). Pickering (op. cit., p. 771) says that Pursh received a specimen of the plant from Florida. MacCauley (Seminole Indians of Florida, in Fifth Annual Report Bureau of Ethnology, p. 504) says that the Seminole Indians gather in the swamps all the rice they need.

Georgia. Grows in Clark county and elsewhere in small quantities (letter of John P. Campbell, Athens, Georgia, April 13, 1899).

Idaho. Not known, and probably not found west of the Rocky mountains (letter of L. F. Henderson, Moscow, Idaho, December 11, 1898).

Illinois. Quite common in Carroll county, Bluff lake in Union county, and in ponds formed by Illinois river in Peoria and Fulton counties (letter of G. P. Clinton, Urbana, Illinois, May 3, 1899). It is also very abundant (one thousand acres) in Grass lake, Lake county (letter of L. A. Paddock, Grass lake, Lake county, Illinois, January

20, 1899). It also grows plentifully in sloughs of the Mississippi and in small streams in Jo Daviess county.

INDIANA. Found in Gibson, Monroe, and La Porte counties.

INDIAN TERRITORY. Not known (letter of A. Grant Evans, Muscogee, Indian Territory, April 25, 1899).

IOWA. Common, especially in the northern and central parts. It has been collected in Emmet, Scott, Delaware, Clinton, Linn, Humboldt, Johnson, Louisa, Hancock, Wright, Story, and Fayette counties (letter of B. Shimek, Iowa City, Iowa, December, 1898).

KANSAS. Not known (letter of A. S. Hitchcock, Manhattan, Kansas, April 24, 1899).

KENTUCKY. Grows in lakes in the "barrens" in the western part of the state (letter of C. W. Mathews, Lexington, Kentucky, December 15, 1898).

LOUISIANA. "Occurs plentifully in all the lower counties" (letter of George E. Beyer, New Orleans, Louisiana, December 19, 1898; also letter of A. B. Langlois, St Martinville, Louisiana, November 21, 1898).

MAINE. Abundant in Aroostook county in the Mattawamkeag river system; very abundant in the Penobscot river system above tidewater. It is also abundant in Kennebec county on Messalonskee river and other tributaries of the Kennebec, and it is found in Franklin county along Sandy river. "Doubtless the plant is common in other waters in central Maine" (letter of M. L. Fernald, Gray Herbarium, Cambridge, Massachusetts).

MARYLAND. Abundant in Anne Arundel county, and probably in other counties bordering on Chesapeake bay (letter of N. W. Barton, Baltimore, Maryland, about December 10, 1898).

MASSACHUSETTS. Rather common in many streams and ponds in eastern Massachusetts, in at least Essex, Middlesex, and Norfolk counties. It is found also in Connecticut river at Northampton, in Hampshire county (letter of M. L. Fernald, Gray Herbarium, Cambridge, Massachusetts, December 12, 1898).

MICHIGAN. Found throughout the state in mud-bottomed lakes and sluggish streams; also found commonly in Grand river valley (letter of C. F. Wheeler, Michigan Agricultural College post-office, Michigan). It is found also in Huron river, Washtenaw county (letter of F. C. Newcombe, Ann Arbor, Michigan, December 9, 1898). The plant is also very abundant in St Joseph river in southwestern Michigan, and is found also in various streams and small alluvial lakes in Kalamazoo and Barry counties.

MINNESOTA. See the "Wild-rice District," in the present chapter, pages 1033–1036.

MISSISSIPPI. Common in the extreme southern part of the state (letter of S. M. Tracy, Agricultural College, Mississippi, January 6, 1899). It is found also along Mississippi river.

MISSOURI. No data through correspondence.

MONTANA. Not known (letter of J. W. Blankinship, Bozeman, Montana, December 12, 1898).

NEBRASKA. Grows throughout the state (letter of Charles E. Bessey, Lincoln, Nebraska, December 9, 1898). It also occurs in swamps in the sand hills near Whitman, Grant county (Dept. of Agric., Div. of Botany, U. S. Nat. Herbarium, vol. III, p. 187).

NEVADA. Not known (letter of Marcus E. Jones, Salt Lake City, Utah, December 23, 1898).

NEW HAMPSHIRE. Found in Androscoggin river (letter of Henry C. Jessup, Hanover, New Hamphire, December 13. 1898).

NEW JERSEY. "Common in most districts," in lakes and ponds and tidal waters, especially in Delaware river (letter of G. Macloskie, Princeton, New Jersey, December 15, 1898). A fossil grass with a broad leaf was discovered in the Yellow Gravel at Bridgeton, which Dr N. L. Britton, of New York City, says perhaps is *Zizania* (Transactions N. Y. Academy of Sciences, November 24, 1884, p. 31; also Proceedings Am. Assoc. Adv. Sci., vol. XXXI, 1882, p. 359).

NEW MEXICO. Not known (letter of E. O. Wooton, Mesilla Park, New Mexico, December 22, 1898).

NEW YORK. It was collected in large quantities by the Seneca and other Indians in 1870.

NORTH CAROLINA. Common in low and submerged districts (letter of H. V. Wilson, Chapel Hill, North Carolina, February 15, 1899). Notes on Grasses and Forage Plants of the Southern States (U. S. Dept. of Agric., Div. of Agros., Bull. 1, 1895, p. 34) says it grows near Wilmington, New Hanover county; see also Gerald McCarty in Botanical Gazette, vol. X, 1885, p. 385.

NORTH DAKOTA. Grows in Ramsey and Benson counties in Sweetwater lake and in Twin lake, where it is very abundant, and also in Devils lake (letter of Melvin A. Brannon, Grand Forks, North Dakota, December 10, 1898). Coues (New Light on the Greater Northwest, vol. I, p. 138) says that in 1800 wild rice was plentiful in a marais (now Morse's slough) at Washville, Walsh county. It is also quite plentiful in the Dakotas, east of the Mississippi. It is often so abundant in Sioux river as to cover the entire bed for long distances (Grasses and Forage Plants of the Dakotas, U. S. Dept. of Agric., Div. of Agros., Bull. 6, p. 17).

OHIO. Grows in the state as far south as 40 miles below Columbus, and is also reported from Cincinnati in the catalog of Joseph F. James (letter of W. E. Kellerman, Columbus, Ohio, May 18, 1899). It grows also in the shallow waters of Lake Erie.

OREGON. Not known (letter of E. R. Lake, Corvallis, Oregon, December 30, 1898).

PENNSYLVANIA. Abundant along Delaware river and its tributaries, but probably does not extend far inland (letter of John R.

Macfarlane. Philadelphia, December 12, 1898). It is reported in Brandywine river, in Chester county, by Flora Cestrica, p. 93, edited in Westchester, Pennsylvania, 1837. Thomas C. Porter (A List of the Grasses of Pennsylvania, Bulletin of the Torrey Botanical Club, vol. xx, 1893, p. 197) says that it grows in Lancaster county above Shocks Mill.

RHODE ISLAND. Occurs in Providence county (letter of J. Franklin Collins, Providence, Rhode Island, May 4, 1899).

SOUTH CAROLINA. No data through correspondence.

SOUTH DAKOTA. Abundant in streams tributary to Sioux, James, and Little Minnesota rivers, and throughout eastern South Dakota (letter of D. W. Saunders, Brookings, South Dakota, January 4, 1899; see also Grasses and Forage Plants of the Dakotas, U. S. Dept. of Agric., Div. of Agros., Bull. 6, p. 17). It is also reported from Huron, Tacoma, Brookings, and Sioux Falls counties.

TENNESSEE. Not known (letters of Samuel McBain, Knoxville, Tennessee, December 9, 1898, and November 27, 1899).

TEXAS. "Grows in Texas, presumably in south and east Texas, abundantly" (letter of William M. Bray, Austin, Texas, December 13, 1898). Coulter (Dept. of Agric., Div. of Bot., U. S. Nat. Herbarium, vol. 1, p. 55) says that it is found in the region of the Rio Grande "between Brazos Santiago, and El Paso county."

UTAH. Not known (letter of O. Howard, Salt Lake City, Utah, December 13, 1898).

VERMONT. Grows in abundance in Lake Champlain valley in at least Franklin, Chittenden, Addison, Rutland, and Grand Isle counties (letter of L. R. Jones, Burlington, Vermont, December 27, 1898).

VIRGINIA. Not known in the Allegheny or Piedmont regions, but is found in the Potomac flats (letter of A. H. Tuttle, Charlottesville, Virginia, January 17, 1899).

WASHINGTON. No data through correspondence.

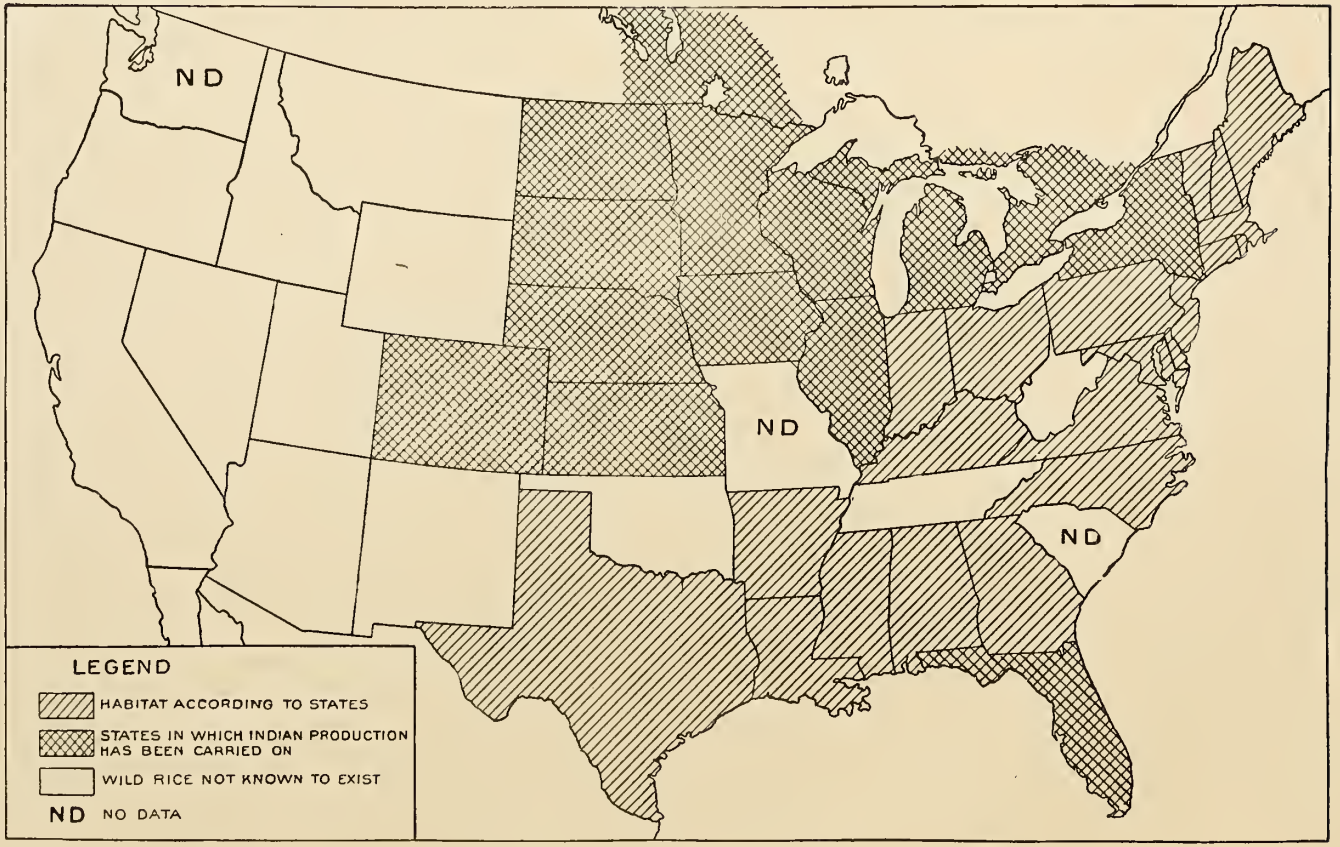
WEST VIRGINIA. Not known (letter of W. E. Rumsey, Morgantown, West Virginia, December 17, 1898).

WISCONSIN. See the "Wild-rice District," in the present chapter.

WYOMING. Not known (letter of Aven Nelson, Laramie, Wyoming, December 12, 1898).

During the first quarter of the nineteenth century wild rice grew quite extensively in that expanse of the United States lying between the Mississippi river and the Rocky mountains.[1]

[1] Mr John Dunn Hunter was a captive from childhood to young manhood among the Osage Indians, and during the first quarter of the nineteenth century roamed over "the Missouri and Arkansas country," which he describes as being "bounded on the east by the state of Missouri and Mississippi river; north by the British dominions; west by the Rocky mountains; and south by the Arkansas river and territories of the Mexican empire" (Hunter, Memoirs of a Captivity, pp. 137, 138). He classifies the lands of this extensive territory under five heads, as follows: (1) Alluvial or river bottom, (2) fertile prairies, (3) hills, (4) morasses or swamps, (5) barrens or sterile prairies. He says of the morasses or swamps, "In general they afford the wild rice, from which, after the buffaloes and other grazing animals have tramped over it, the Indians collect their supplies" (ibid., p. 142).



WILD RICE HABITAT, BY STATES

Thus it will be seen that *Zizania aquatica* occurs in all the commonwealths of the United States, so far as ascertained by correspondence, except in Arizona, California, Colorado, Idaho, Indian Territory, Montana, Nevada, New Mexico, Oregon, Tennessee, Utah, West Virginia, and Wyoming. Most of these states lie in or west of the Rocky mountains. It is believed that the plant grows in both West Virginia and Tennessee, but it has not yet been reported.

There are three states from which no data have been collected, viz, Missouri, South Carolina, and Washington. It is believed that the plant grows in the former two.

Habitat in the Wild-rice District

Wherever the last glacier left little mud-bottomed, water-filled hollows, there wild rice has established itself, if other conditions are favorable. Such ponds and lakes are characteristic of the alluvial apron spread out over Wisconsin and Minnesota. In 1817 the interior of Wisconsin is spoken of as watered with innumerable small lakes and ponds which generally abound with folle avoine [wild rice], waterfowl, and fish, each in such prodigious quantities that the Indians are in a manner exempt from the contingence of famine.[1]

Within the wild-rice district sluggish streams and quiet bends in the rivers and creeks also produce wild rice, provided the bed is mud alluvium. The grain has followed the stream toward its mouth, the waterfowl has sown it in its flight, and the Indian has carried it to his favorite lakes and streams, until to-day it is safe to say that the grain is found wherever in these two states there is suitable soil (see plate LXVII *a*).

Before the middle of the seventeenth century wild rice was reported as the staple food of the Menomini Indians, and as being very plentiful on what is now Menomini river, the boundary between Wisconsin and the upper peninsula of Michigan. Indian tradition first speaks of the grain as being found in this stream, and from here as a starting place the present memoir will follow the plant along the various waterways of the wild-rice district. Green bay, from above the mouth of Menomini river southward to the bay-head, has been fringed with the plant from earliest historic times, and to-day there are thousands of acres of wild rice in the shallows of its waters. Most of the streams which discharge into it—all of those which are suitable—bear the grain abundantly. Fox river, from Lake Winnebago to its source, has been reported as filled with wild rice from the time of Marquette, who spoke of it in 1673 as follows: "The way is so cut up by marshes and little lakes that it is easy to go astray, especially as the river is so covered with wild oats that one can hardly discover the channel."[2] Carver, in

[1] Samuel R. Brown, Western Gazetteer, p. 252.

[2] Quoted by Thwaites in Historic Waterways, Chicago, 1888, pp. 156, 157.

1767, wrote, "in fome places it is with difficulty that canoes can paſs, through the obſtructions they meet with from the rice ſtalks, which are very large and thick."[1] Featherstonhaugh wrote, in 1847, that near Fort Winnebago there were several thousand acres of wild rice. He estimated the fields as at least 5 miles long and 2 miles wide.[2] He said that on Fox river they were obliged to stop paddling and "all took to warping the canoe through by hauling upon the tall stalks."[3] In 1888 a writer stated that north of the portage of the Fox and Wisconsin rivers, "as far as the eye can reach, there is a stretch of wild-rice swamp."[4]

Fox river illustrates well the influence of the current upon the existence of wild rice. From the portage between the Fox and Wisconsin rivers to Lake Winnebago, Fox river is 104 miles long, with a total fall of only 40 feet, and, as has been seen, it is filled with the plant. On the other hand, from lake Winnebago to Green bay, where the stream is only 37½ miles long, with a fall of 170 feet, the plant does not flourish.

Wild rice is found along Wisconsin river even below the portage just referred to,[5] while the headwaters of the Wisconsin are often dense wild-rice beds. Wolf river and its tributaries also grow the plant.

The upper waters of the Red Cedar, Chippewa, and St Croix rivers are filled with the growth, and it is from this supply that the Ojibwa Indians of Lac Courte Oreille reservation gather their annual crop[6] (see plate LXVII *b*). In speaking of the Menomini, Wolf, Fox, Wisconsin, Red Cedar, Chippewa, and St Croix rivers and systems, it must be remembered that the various lakes, ponds, and streams in all this section of country are considered.

Although Dr Jedidiah Morse[7] reported in 1822 that wild rice did not grow within 150 miles of Lake Superior on the south, yet it is now annually gathered in many of the streams flowing into Lake Superior from this region, and in 1860 J. G. Kohl stated that "the plant is very prevalent in the southern part of the lake [Lake Superior]."[8]

The headwaters of Mississippi river in Minnesota are in the heart of the Minnesota rice fields.[9] The regions about Mille Lacs, Leech lake, Sandy lake, Gull lake, and Lake Winnibigoshish, all draining into the Mississippi, are abundantly supplied with wild rice.[10] Maps

[1] Carver, Travels, p. 38; see also p. 536. Brown, Western Gazetteer, p. 261. Coues, Pike, vol. I, p. 302.

[2] Featherstonhaugh, Canoe Voyage, vol. I, p. 184.

[3] Ibid., p. 190.

[4] Thwaites, op. cit., p. 145; see also Edward Tanner in Detroit Gazette, January 15, 1819.

[5] Atwater, Indians, p. 181.

[6] Mrs Ellet, Summer Rambles, pp. 151, 152; also Schoolcraft, Thirty Years with the Indian Tribes, pp. 369, 373, 380, 383, 385; Schoolcraft, Summary Narrative, appendix, p. 543; Carver, Travels, p. 533; also Report of the Commissioner of Indian Affairs, 1850, p. 54.

[7] Morse, Report, appendix, p. 30.

[8] Kohl, Kitchi-Gami, pp. 117–118.

[9] Schoolcraft, Indian Tribes, vol. IV, pp. 193–194; also Schoolcraft, Summary Narrative, pp. 134, 235, 239, 249.

[10] Hennepin, Nouvelle Découverte, p. 313* (fol. 0*4). See also Indian Affairs Report, 1850, pp. 56, 61; Schoolcraft, Indian Tribes, vol. I, pp. 186–187.

of fifty years ago present a "Great Rice M[arsh]" as extending along Minnesota river (then generally represented as the St Peters) from its juncture with the Mississippi at St Paul up as far as Beaver falls in Renville county, Minnesota;[1] and Carver said of this country in 1767, "Wild rice grows here in great abundance."

Lakes and streams draining into Red river of the North, between Minnesota and Dakota, are also Minnesota wild-rice fields.[2] One of these streams is Wild Rice river, which has its source in two lakes bearing the name Rice, which also lie in Minnesota. Another is Pse river, whose source is in the Dakotas. Farther north, the lakes and streams emptying into Lake of the Woods, Rainy lake, and the Winnipeg system in general, are mainly wild rice producing waters.[3] Mackenzie said in 1801:

> Vaft quantities of wild rice are feen throughout the country [from Lake Superior to Lake Winnipeg], which the natives collect in the month of Auguft for their winter ftores.[4]

Seymour wrote of Lake of the Woods, in 1850:

> The indentations of its rocky, moss-covered shores are full of the wild rice, which is annually collected in large quantities by the Indians.[5]

Farther south the St Louis river system tells the same tale—the streams all bear abundant stores of wild rice.[6] In 1883 the plant was reported from Minnesota as being "common, or frequent, in favorable situations throughout the State; sometimes attaining, in Brown county, a height of 13 feet, with leaves 4 feet long."[7] Chapter VII of the present memoir still further aims to show the extent of wild rice, where Indian production was carried on, as exhibited by its influence on geographic names.

Some idea of the prevalence of wild rice in the lakes of this district may be obtained from the following characteristic quotations:

> The Indians around Sandy lake [Aitkin county, Minnesota], in the month of September, repair to Rice lake, to gather their rice. In no other place does it grow in as large quantities as there. This lake is about 5 miles long and 3 broad. It might, perhaps, be called a Marrais, for the water is not over 5 feet deep, and its surface is almost entirely covered with rice. It is only in morasses, or muddy bottoms that this grain is found.[8]

Warren writes of Mille Lacs in 1852, that it is a circular lake about 20 miles across and abundantly stocked with fish. Connected with it

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[1] Map accompanying Carver's Travels. See also Schooleraft, Indian Tribes, vol. II, p. 97.

[2] Lord Selkirk's Settlement in North America, p. 120. See also Western Journal, May, June, July, August, vol. II, number 5, 1849; Keating, Narrative, vol II, p. 37.

[3] Harmon, Journal, pp. 44, 45, 142. See also MeMillan, Observations on the Distribution of Plants along shore at Lake of the Woods, pp. 949–1023, in Minn. Bot. Studies, Bull. 9, parts 10 and 11, p. 994; Hind, Narrative, pp. 96, 97, 115, 116, 118.

[4] Maekenzie, Voyages, pp. 61, 62.

[5] Seymour, Sketches of Minnesota, p. 233.

[6] Schoolcraft, Summary Narrative, p. 112; also Indian Affairs Report, 1891, vol. I, p. 471.

[7] Upham, Catalogue of the Flora of Minnesota, p. 159.

[8] Edward Tanner, Detroit Gazette, December 8, 1820.

is a string of marshy or muddy-bottomed lakes in which the water is but a few feet deep, and wherein the wild rice grows luxuriantly. "Possessing these and other advantages," he says, "there is not a spot in the northwest which an Indian would sooner choose as a dwelling place than Mille Lacs."[1]

Jefferson Davis wrote, in 1885, that in 1829 in the country about "Tay-cho-pe-rah," "The four lakes country," i. e., Madison and its vicinity, in Wisconsin, "the Indians subsisted largely on Indian corn and wild rice."[2] In 1816 the grain was gathered in Rock river, Wisconsin, and chapter VII will show that the plant existed throughout the southeastern part of the State.

A general view of wild rice in Wisconsin and Minnesota was given by Upham in 1883, who quotes as follows:

> Wild rice . . . acquires in the Northwest an economical importance second to no other spontaneous production. It is the only instance in this region of a native grain, occurring in sufficient quantity to supply the wants of ordinary consumption. It is particularly abundant on the lake-like expansions of rivers, toward their sources, which give such a marked feature to the distribution of these northern streams, and is so grandly illustrated in their main type, the Mississippi. It seems to select, by preference, the lower terminations of these expansions, which generally debouch by a narrowed outlet and considerable fall, constituting rapids . . . It is rarely met with on inland lakes which have no outlet.[3]

This section has shown that most of Wisconsin and the northern half of Minnesota bore wild rice so abundantly that the Indian population depended very largely upon it for food. This "wild-rice district," as considered in chapter VI, includes Wisconsin, excepting the southwestern part, and that part of Minnesota lying east of Mississippi river. This boundary is fixed almost arbitrarily, the only reasons being that more accurate statistics of Indian population, and a more precise knowledge of Indian food conditions, were here obtainable than for the territory west of the Mississippi, which consequently is left out of consideration, though it has abundant wild-rice fields.

This view of the habitat within the wild-rice district shows that no other section of the North American continent was so characteristically an Indian paradise, so far as a spontaneous vegetal food is concerned, as was this territory in Wisconsin and Minnesota.

Foreign Habitat

Immediately north of the states of Wisconsin and Minnesota, in Canada, the entire system of waterways, extending from Grand Portage of Lake Superior through the Winnipeg system, produces wild rice abundantly. Still farther north and east there are lakes in which John Long reported the grain one hundred and fifty years

[1] Warren, History of the Ojibwa, p. 156.
[2] Butler, Tay-cho-pe-rah, in Wisconsin Historical Collections, vol. X (1883–1885), p. 75.
[3] Upham, Catalogue of the Flora of Minnesota, p. 159.

ago. He said that Lake Monontoye "abounds with excellent fish and wild fowl; and oats, rice, and cranberries grow spontaneously in the swamps."[1] Of Red lake (Misqui Sakiegan) Long said, "Fish is caught here in great abundance, and wild rice grows in very great plenty in the swamps."[2] In speaking of Weed lake (Lake Schabeechevan) he further says, "The swamps are full of wild rice and cranberries."[3] In Ontario wild rice grows in immense beds along the shore of Lake Ontario, being very abundant in Quinto bay. It grows also along Lake Erie, and along the shore of Lake Huron, especially on the shore of Georgian bay.[4] It is plentiful also in that triangular section of Ontario roughly bounded by lakes Huron, Erie, and Ontario, and Ottawa river. Special reference has been made to it in the region of Lake Simcoe and Rice lake between Quinto bay and Georgian bay.[5]

Wild rice is reported as growing in New Brunswick and Newfoundland.[6] The seed has also been planted in England, where Sir Joseph Banks introduced it from Canada, in 1790. In 1819 it was still growing at his villa, Spring Grove.[7] It was also planted at Lincolnshire, with the intention of popularizing it as a food for the poor, but it failed.[8] The plant is said to be found in Jamaica, and it is further reported from the eastern part of Siberia[9] and from eastern Russia, where it is called *Zizania latifolia*.[10] These last two references probably refer to the same country. In Japan the plant is very common, extending from the island of Yezo, in the north, to Shikoku and Kiushiu, in the south, its total habitat thus reaching from 31° to 41° north latitude. It also thrives in eastern China and on the island of Formosa.[11] So far as is known the plant is nowhere reported as native in Europe, Africa, Australia, or South America.

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[1] Long, Voyages, p. 76.

[2] Ibid., p. 81.

[3] Ibid., p. 108.

[4] Kohl, Travels, vol. II, p. 46, et seq. See also Canniff, History of the Settlement of Upper Canada, pp. 587–588; Newberry, Food and Fiber Plants of the North American Indians, Popular Science Monthly, vol. XXXII, p. 40.

[5] Kohl, op. cit., vol. II, p. 46, et seq. See also Flint, History and Geography, vol. II, p. 134; Copway, Life of Kah-ge-ga-gah-bowh, p. 65.

[6] Mac Kay, Letter, Halifax, May 1, 1899.

[7] Cyclopedia or Universal Dictionary of Arts, Science, and Literature, vol. XXXIX.

[8] Smith, Dictionary of Economic Plants, p. 83.

[9] Vasey, The Agricultural grasses of the United States, Dept. of Agriculture, Bot. Div., Spec. Bull. 1889, p. 47.

[10] Bentham, Notes on Gramineæ, pp. 14–134, in Jour. Linn. Soc., vol. XIX, Botany, 1882, p. 54.

[11] Letter of J. Matsumura, Tokyo, Japan, December 16, 1898.

Chapter III

INDIANS[1]

The Ojibwa

In the region of the upper lakes the wild rice producing Indians are of two great linguistic stocks, the Algonquian and the Siouan. Of the Algonquian stock the Ojibwa, Menomini, Sauk, Fox, Ottawa, Potawatomi, Maskotin, and Kickapoo tribes will be considered, while of the Siouan stock, attention will be devoted to the Dakota, Winnebago, and Assiniboin tribes. A small number of refugee Huron and Petun Indians of the Iroquoian stock were within this territory at one time.

When one considers their fierceness, numbers, and extensive habitat, the Ojibwa (usually called Chippewa) and the Dakota (generally designated Sioux) are the most important of all of the Indians within the wild-rice area. These two tribes have been enemies and friends successively from historic times until 1862, when the Dakota were removed from Minnesota.

Even previous to the records of written history, native tradition paints a picture of almost constant struggle between the Ojibwa and Dakota Indians for the conquest and retention of the territory including the rich wild-rice fields. Schoolcraft wrote in 1831:

> A country more valuable to a population having the habits of our northwestern Indians could hardly be conceived of; and it is therefore cause of less surprise that its possession should have been so long an object of contention between the Chippewas and Sioux.[2]

The same author further spoke of this region as follows:

> It has been noted, from the first settlement of Canada, as abounding in the small furred animals, whose skins are valuable in commerce. Its sources of supply to the native tribes have been important. It has, at the same time, had another singular advantage to them from the abundance of the grain called *monomin*, or rice, by the Chippewa Indians, and *Psin* by the Sioux.[3]

Mr W. W. Warren presented many facts pertaining to the subject in his valuable work, History of the Ojibways, Based upon Tradition and Oral Statements.

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[1] Many facts concerning the production and consumption of wild rice by the Indians in the wild-rice district must be considered later in chapter VI, which treats of the general social and economic interpretations. This present chapter seeks only to locate the wild rice producing Indians, giving their migrations and population.

[2] Schoolcraft, Summary Narrative, p. 544.

[3] Schoolcraft, Indian Tribes, vol. 1, p. 187.

Indian traditions, such as are recited in the so-called Grand Medicine Society of the Ojibwa, contain much of Indian tribal history. The student will be impressed with the accuracy of Ojibwa traditions, as presented by Mr Warren, when dates are mentioned which authentic written history can confirm.[1] That authority states that, according to their traditions, the Ojibwa dwelt on the Atlantic coast north of St Lawrence river about five hundred years ago. At that time they started westward, stopping for a considerable period on the St Lawrence near the present Montreal, again on Lake Huron, then at Sault Ste Marie, and finally at La Pointe, Wisconsin, and possibly also at Fond du Lac, Lake Superior, as one of their traditions includes this latter as a stopping place.

It is not known what name the Ojibwa bore before they reached Michilimackinac, where, from natural causes, they split into three great sections. One section remained near the point of separation—these are the Ottawa, "Ot-tah-way," or "Traders." The second, the Potawatomi, "Potta-wat-um-ees," or "Those-who-make-or-keep-a-fire," moved up Lake Michigan and for a time kept alive the sacred national fire. The third division, the Ojibwa, or "To-roast-till-puckered-up," stopped at Sault Ste Marie for a long period after the separation. They made war against the Iroquois in the east, whom they called "Naud-o-waig," and against the Sioux [Dakota] in the west, whom they called "Naud-o-wa-se-wug." Naud-o-waig literally means "Like-unto-the adders," and is thus an Ojibwa tribute to the deadly warlike spirit of both these tribes.

During a considerable part of the westward migration of the tribal ancestors of the Ottawa, Potawatomi, and Ojibwa Indians, it is doubtless true that they were driven in that direction by the fierce Iroquois. But since the division of the parent tribe, the Ojibwa, in their continued westward migration, have been mainly fierce aggressors. Some of them remained at Sault Ste Marie and in time became a village. These were the first Ojibwa with whom the French came in contact, and because of the situation of this village the French called all of the Ojibwa Indians "Saulteaux." The remainder of the tribe split again, however, and continued westward. One branch, the Saulteaux, passed north of Lake Superior even to Rainy lake, and formed a lasting peace with the

[1] Mr Warren says that the Ojibwa Indians first became acquainted with the white man about the year 1612 (op. cit., p. 90). Dr Neill has shown from printed records that Stephen Brulé, one of the reckless and enterprising voyageurs under Champlain, appears to have been the first white man who brought to Quebec, about 1618, a description of Lake Superior, as well as a specimen of its copper; and further, Lake Superior is first shown on a map by Champlain in 1632. It is probable that the Ojibwa Indians were the ones with whom Brulé came in contact on Lake Superior at that time (see Neill, in Minn. Hist. Colls., vol. v., pp. 399–405). Again, Warren fixes the date of the treaty between the Ojibwa and the Dakota, after the former had driven the Dakota from the rice lakes of St Croix river, at about the year 1695. Warren's editor calls attention to the fact that La Harpe wrote that Le Sueur in 1695 built a fort on an island in the Mississippi about 200 leagues above Illinois river in order to effect a treaty between the Sauteurs (Ojibwa) and the Sioux (Dakota) (Warren, op. cit., p. 163 and note).

Assiniboin and the Kinisteno or Cree, and from there joined their southern kinsmen against the latter's enemies, the Dakota. The second or southern division, after leaving Sault Ste Marie, pushed westward along the south shore of Lake Superior, stopping temporarily at Grand island, L'Anse, and finally at "Shaug-ah-waum-ik-ong" or Chequamegon bay.

Warren says that it was while the Ojibwa were still at Sault Ste Marie that they and the Dakota first met, as is seen in the name which the latter gave the Ojibwa—"Ra-ra-to-oans," or "The-people-of-the-falls." In all this westward movement south of Lake Superior the Ojibwa were surrounded by the fierce "O-dug-aum-eeg," or "Opposite-side people" (the Fox Indians), and also by the Dakota, who claimed the southern and western sides of the lake. Every foot of ground was valiantly contested, until at last the invaders halted near La Pointe, where they were compelled to seek safety on La Pointe island. It is clear, from Indian tradition, and the evidence seems trustworthy,[1] that it was about three hundred and sixty years previous to 1852, the year in which Warren wrote, that the Ojibwa assembled on La Pointe island. This would be about 1492. There they built a village and cultivated extensive gardens of pumpkins and maize. They also occasionally hunted on the mainland along the headwaters of St Croix river. They lived about a hundred and twenty years on La Pointe island, from which, after a signal victory over a war party from both of their western enemies, the Dakota and the Fox, they gained a lasting foothold on the mainland and spread to the south and west. From early in the seventeenth century they had ascended St Lawrence river with canoe loads of furs for the French. Then they acquired firearms and the primitive man's craving for strong drink, and learned the exchange value of peltries in satisfying their new wants; with a force at once rapid and irresistible they plunged into the land of small lakes to the south and west, where the small furred animals were the most abundant. They destroyed the Fox villages about the headwaters of the St Croix and forced the inhabitants to desert their rice lakes in the midland country between St Croix and Chippewa rivers, the ejected people fleeing to Wisconsin river. The invading Ojibwa also planted a village on an island at the mouth of St Louis river at Fond du Lac. Warren places the date of these inland movements between the years 1612 and 1671. In 1746 the Fox Indians again incurred the hatred of the Ojibwa, who, with the assistance of the French, dislodged them from Wisconsin river and Lake Michigan, and drove them to the Mississippi.

The Dakota of Mdewaka^n ("Spirit lake," Mille Lacs), were at peace with the Ojibwa of Fond du Lac, but having treacherously

[1] Warren, op. cit., pp. 89–90.

murdered some of the Ojibwa from that village, they were driven from Mille Lacs by the united Ojibwa tribe. Immediately thereafter the Ojibwa began to force the Dakota from the rice lakes of St Croix river region, which they had long occupied in conjunction with the Fox Indians. In 1695 Le Sueur effected peace between the Ojibwa and the Dakota of the St Croix, who at that time lived near together and even intermarried. The Ojibwa chose Rice lake at the head of Shell river, which is a tributary of the St Croix, as their permanent settlement in the newly acquired territory, and it was still an Ojibwa village in 1852.[1]

Fish are very plentiful in all of the lakes about the sources of the Mississippi. The country also affords birch bark and maple sugar abundantly, and "in many of these lakes, which lie clustered together within an area of several hundred miles, the wild rice grows in large quantities and most luxuriantly, affording the Indian an important staple of subsistence."[2] After the conquest of the Mille Lacs and St Croix region the Ojibwa drove the Dakota from Sandy lake, Aitkin county, Minnesota, and made there a permanent settlement. It was subsequently from this point, as before it was from Chequamegon bay, that the Ojibwa war parties started which eventually drove the Dakota from their favorite homes at Leech, Winnipeg, Cass, and Red lakes, as well as from Gull lake, Crow Wing, and the vicinity of Mille Lacs. The Dakota made their last determined stand upon the islands of Leech lake, but finally withdrew to the edge of the western prairies between the sources of Minnesota river and Red river of the North. By the year 1783 the Ojibwa were occupying Sandy, Leech, and Red lakes, and there was not a Dakota village above the Falls of St Anthony and east of the Mississippi.[3]

The first permanent Ojibwa settlement on Ottawa lake, the site of the present Lac Courte Oreille reservation, was made about the year 1745. From there new villages were at length made at Lac Chetac, Red Cedar lake, Long lake, and "Puk-wa-wanuh on Chippeway river." At about the time that the Fox Indians were driven from Wisconsin river, the Ojibwa began to occupy this latter territory, their chief village being established at "Waus-wag-im-ing" (Torch lake, Lac du Flambeau). From here they spread down the Wisconsin as far as the mouth of Fox river, and toward the east as far as Pelican lake. From these various places, during the last hundred years, they have spread over the remainder of northern Wisconsin and Minnesota, fighting with remnants of the Fox, Dakota, and Winnebago tribes at each advancing step. In the latter part of the eighteenth century the two bands of the Ojibwa—the Lac Courte Oreille and Lac du Flambeau—on the sources of Chippeway and Wisconsin rivers, respectively, numbered about a thousand

[1] A permanent Ojibwa wigwam is illustrated in plate LXVIII, though generally, at that day, permanent as well as temporary wigwams were of birch bark or birch bark and matting, See plates LXVII *b*, LXXIX.

[2] Warren, op. cit., pp. 175–176.

[3] Neill, History of the Ojibwa, p. 450.

souls. They raised large quantities of maize and potatoes: "they also collected each autumn large quantities of wild rice, which abounded in many of their lakes and streams."[1]

The following facts shed light on the importance which the Indian attached to wild rice. Almost every bend of Chippewa and Red Cedar rivers has been the scene of an Indian battle, and each of these streams has borne a name synonymous with "Wild-rice river." Prairie-rice lake ("Mush-ko-da-mun-o-min-e-kan," Prairie lake, Barron county, Wisconsin) has been the scene of several battles between the Ojibwa and the Dakota. It is about 8 miles long and averages less than a quarter of a mile wide. It is shallow, miry-bottomed, and almost entirely covered with wild rice, which is so thick and luxuriant that the Indians have to cut paths through it for their canoes. "From the manner in which they gather the rice, and the quantity which a family generally collects during the harvesting season, this lake alone would supply a body of 2,000 Indians."[2] From the earliest period of their occupation of the Chippewa river country, the most fearless of the Ojibwa came to this lake each fall of the year to collect a portion of the abundant rice crop, notwithstanding its close vicinity to the Dakota villages, and notwithstanding that they lost lives from the sudden attacks of the Dakota almost yearly.[3]

Some of the Ojibwa villages near the wild-rice fields were named "Wild-rice village." In 1852 Warren[4] said that the Ojibwa living on "Rice" lakes of the St Croix were called "Mun-o-min-ik-a-sheenh-ug, or Rice-makers." In 1831, Schoolcraft, in naming the Ojibwa bands, mentioned the "Folle Avoine country" as including Lac du Flambeau, Ottowa lake, Yellow river, "Nama Kowagun" of St Croix river, and Snake river.[5] Indeed, the French called the Indians of all this section of country—the river sources of northern Wisconsin—the "Fols Avoin Sauteurs."[6] Arrowsmith's map (London, 1796; additions, 1802) shows the Ojibwa occupying the territory both north and south of Lake Superior, and shows Burntwood river (Bois Brulé) as the "passage into the country of the Wild Rice Indians." It leads to the headwaters of St Croix river, half-way down the course of which is a "Chippeway village called the Rice people."

About 10,000 Ojibwa Indians had access to wild rice from the time they drove the Fox Indians out of the wild-rice fields until, say, the year 1825, or in round numbers two hundred years, and this is about the present Ojibwa population in the United States who use wild rice.[7]

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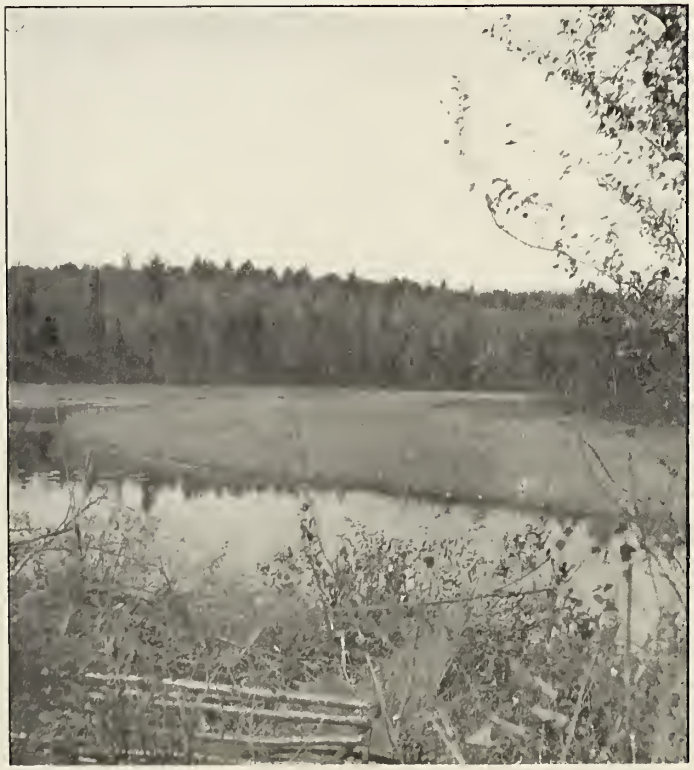
[1] Warren, op. cit., p. 299.
[2] Ibid., p. 309.
[3] Ibid., pp. 309–310.
[4] Ibid., p. 38.
[5] Schoolcraft, Narrative, appendix, p. 576.
[6] Coues, Pike, vol. I, pp. 342–343.
[7] The portable wigwams in which these Indians visit the rice fields are illustrated in plates LXVII *b*, LXXIX.



A. WILD-RICE BED IN LAC COURTE OREILLE RIVER

B. OJIBWA BIRCH-BARK AND MATTING WIGWAM AT THE WILD-RICE FIELD

The Dakota

Ethnologists have shown that the Indian tribes of the Siouan linguistic stock at one time occupied the Piedmont and coastwise areas between the Appalachian range and the Atlantic in the present states of Virginia, North Carolina, and South Carolina.[1] Allen[2] has proved that the bison, prior to the year 1800, had crossed the Appalachians from the west and occupied the Piedmont area, entering this region probably by the way of Cumberland gap. W J McGee[3] puts these two facts together, and suggests that the bison led the ancestors of the Dakota, one of the Siouan-speaking tribes, from the Piedmont into the western prairies, where history found them. Hale[4] suggests that the valley of Ohio river and of Big Sandy river, which flows into the Ohio and whose headwaters almost interlace those of the southerly flowing Cape Fear river, was the thoroughfare of these Indians and the bison. Further than this, Allen points out on the map accompanying his memoir that prior to 1800 bison had occupied the western part of Wisconsin as far north as the highlands, and all of Minnesota except the northeastern portion. Thus they could easily have led the Siouan stock through Cumberland gap, the thoroughfare suggested by Hale, across the best pasture lands of America, the blue grass of Kentucky and the prairies of Indiana and Illinois, into the territory under consideration.

It is believed, however, that the Dakota were not much given to buffalo hunting until they came into the prairie region west of the Mississippi river, where they became distinctly a buffalo-hunting people. Mr James Mooney suggested to the writer, after this memoir was written, that the Siouan ancestors were literally pinched out of their home in the east. The Iroquoian stock on the north and the Algonquian on the south of them drew in like the approaching sides of a triangle, and they were obliged to flee westward or perish.

It must further be noted that the Dakota, or that division of the Siouan stock which opposed the westward migration of the Ojibwa, were more of the nature of plains Indians than of river Indians. None of the early travelers, including the Jesuit fathers, speak of them as having homes farther east than St Croix river. They all speak of them as settled west of Lake Superior. To be sure the Dakota roamed over all of Wisconsin, even to Sault Ste Marie and to Green bay; and as late as 1696 they attacked the Indians in Michigan around the southern end of Lake Michigan, but their instincts were clearly those of nomads. With the exception of the Siouan-speaking Winnebago

[1] Horatio Hale, The Tutelo Tribe and Language, Proc. Am. Philos. Soc., vol. XXI, 1883-84; see also James Mooney, Siouan Tribes of the East, bulletin of the Bureau of Ethnology, 1894, and Horatio Hale, Indian Migrations, Am. Antiquarian, January and April, 1883.

[2] The American Bisons Living and Extinct.

[3] The Sioux Indians; A Preliminary Sketch, Fifteenth Ann. Rept. Bu. Amer. Ethnol., p. 173.

[4] Indian Migrations, op. cit., p. 3.

Indians, part of the Mandan, and a few of the Dakota, the entire western Siouan stock seems to have clung to the hunter life of the plains.

A straight line drawn from the foot of Lake Michigan to the foot of Lake Superior (Fond du Lac) marks the early eastern boundary of the bison country in the wild-rice district. Near Madison, Wisconsin, this boundary line bends slightly west of a straight line, while farther north it bends to the east so as virtually to cover the headwaters of Chippewa and St Croix rivers. It is thus seen that the Dakota were on the border line. They were acquiring a taste for wild rice, though they had not cultivated the soil in any way, and they still kept up their fondness for the bison with which they were surrounded when the Ojibwa began to force them westward south of La Pointe island. Though the Dakota fought doggedly, the Ojibwa obtained firearms at an earlier period and in greater numbers than they, and in the end were successful. Previous to the year 1776 Perrot built a fort at Lake Pepin, and Neill[1] said of the French at this fort: "Through their influence the Dakota began to be led away from the rice grounds of the Mille Lacs region."

Another cause aided the Ojibwa toward the latter end of this struggle. As soon as the Dakota acquired horses they turned more readily to their employment of hunting the bison. They came in possession of horses near the opening of the nineteenth century. About the year 1766 Carver said that the Dakota method of hunting the bison was to form a circle around a herd and then set the grass on fire. Few of the animals escaped.[2] Evidently the Dakota were then horseless. Again he said of the Indians still farther south and west: "Having great plenty of horfes, they always attack their enemy on horfeback."[3] And later, "The Naudoweffies [Dakota], who had been at war with this people, informed me, that unlefs they found moraffes or thickets to which to retire, they were fure of being cut off: to prevent this they always took care wherever they made an onfet, to do it near fuch [places] as were impaffable for cavalry." Lewis and Clarke wrote in 1804–1806 that dogs were still the beasts of burden used by the Dakota. Their "lodges may be taken to pieces, packed up, and carried with the nation wherever they go, by dogs which bear great burdens."[4] Later they wrote that the Dakota frequently made incursions among the Mandan Indians to steal horses,[5] and that "the horses of the Mandans are so often stolen by the Sioux, Ricaras, and Assiniboins, that the invariable rule now is to put the horses every night into the same lodge with the family."[6] According to Mallery the Dakota winter counts show that the Dakota first saw and stole horses wearing shoes in the winter of 1802–1803.

[1] Neill, Indian Trade, in Annals of the Minn. Hist. Soc., 1852, p. 32.
[2] Carver, Travels in 1766, 1777, 1778, p. 287.
[3] Ibid., p. 294.
[4] Coues, Lewis and Clarke, p. 140.
[5] Ibid., p. 175.
[6] Ibid., p. 233.

In the winter of 1811–1812 they caught many wild horses south of Platte river, and in the following winter they used riatas to catch wild horses.[1]

So, while during the early incursions of the Ojibwa into the wild-rice fields of the Dakota these fields were worth defending, yet they became less so when the horse came to carry the bison-loving Dakota into the great pasture lands of the western prairies.

However, wild rice played no small part in the household economy of the Dakota Indians, those east of the Mississippi doubtless using it more than the others. A French author, probably of the first quarter of the seventeenth century, wrote that there were five village districts of these Indians. "The Ouatabatonha (River Sioux) live by the St Croix river or on the Wildrice lake, which is below and 15 leagues from the Riviere au Serpent . . . The Menesouhakatoha (or lake Sioux) . . . The Natatoha (or prairie Sioux) . . . The Hictoha (or hunting Sioux) . . . The Titoha (or prairie Sioux)." The five villages numbered 1,200 men, or about 6,000 or 7,000 souls. These were the only Dakota with whom there was any considerable commerce at the time. Others farther west would be little known, but the five villages of 6,000 or 7,000 souls were doubtless about the only Dakota who had access to wild rice. This number must again be reduced, for the Titoha village was situated 50 leagues west of St Anthony falls, hence probably did not use the grain, while it is recorded that the people of other four villages did not cultivate the soil, but were roving about and lived on game, fish, and wild rice.[2] This leaves some 5,000 or 6,000 of these Indians who used wild rice.

Previous to this Perrot said that they occupied a country of nothing but lakes and marshes filled with wild rice. It lay for 50 or more leagues square (19,000 or 20,000 square miles) on both sides of the Mississippi:

Il est à remarquer que le pays où ils [the Dakota] sont n'est autre chose que lacs et marests, remplis de folles avoines, séparés les uns des autres par petites langues de terre qui n'ont tout au plus d'un lac à l'autre que trente à quarante pas, et d'autres cinq à six ou un peu plus. Ces lacs ou marests contiennent cinquante lieues et davantage en carré, et ne sont séparés par aucune rivière que par celle de la Loüisianne (le Mississippi), qui a son lit dans le milieu, où une partie de leurs eaux vient se dégorger. D'autres tombent dans la rivière de Saint Croix, qui est située à leur égard au nord-est, et les range de près. Enfin les autres marests et lacs situez à l'oüest de la rivière de Saint Pierre s'y vont jetter pareillement; si bien que les Scioux sont inaccessibles dans un pays si marécageux, et ne peuvent y estre détruits que par des ennemis ayant des cannots comme eux pour les poursuivre; parceque dans ces endroits il n'y a que cinq ou six familles ensemble, que forment comme un gros, ou une espèce de petit village, et touts les autres sont de mesme éloignez à une certaine distance, afin d'estre à portée de se pouvoir prester la main à la première alarme. Si quelqu'une de ces petites bourgades est attaquée, l'ennemy n'en peut deffaire que

[1] Pictography of the N. Am. Indians, Fourth Ann. Rept. Bur. Eth., p. 89 et seq.
Neill, Memoir of the Sioux, p. 235.

très peu, parceque tous les voysins se trouvent assemblez tout d'un coup, et donnent un prompt secours où il est besoin. La méthode qu'ils ont pour naviguer dans ces sortes de lacs est de couper devant leurs semences, avec leurs cannots, et, les portant de lac en lac, ils obligent l'eunemy qui veut füir à tourner autour; qui vont tousjours d'un lac à un autre, jusqu'à ce qu'ils les ayent tous passez, et qu'ils soient arrivez à la grande terre.[1]

In 1659 Radisson wrote of the Dakota:

Some 2 moons after there came 8 ambaffadors from the natiou of Nadoneferonons [Dakota] that we will call now the Nation of the beefe. Thofe men each had 2 wives, loaded of Oats [wild rice], corne that growes in that countrey, of a fmall quantity of Indian Corne, wth other grains, & it was to prefent to us, w^{ch} we received as a great favour & token of friendfhippe.[2]

In 1671 we read that "they content themselves with a kind of marsh rye, that we call folle avoine, which the prairies supply spontaneously."[3]

In the latter part of the seventeenth century Le Sueur wrote much regarding the use of wild rice by the Dakota. Several references to his remarks will be made later; one, however, is now given. Le Sueur had built a fort on the Upper Mississippi in order to effect a treaty between the Ojibwa and Dakota, and on December 12, which would be after the harvest season for wild rice, three Mendeouacanton (Mdewaka^{n}to^{n}wa^{n}) chiefs came to tell him that the next summer, after having built canoes and gathered their wild rice, they would move near the French. La Harpe wrote, "et promirent que l'été suivant, après avoir construit des canots et fait leur récolte de folle avoine, ils viendraient s'établir auprès des Français."[4]

Early in the nineteenth century Pike recorded that—

The Minowa Kantongs are the only band of Sioux who use canoes, and by far the most civilized, being the only ones who ever built log huts, or cultivated any species of vegetables, and among those only a very small quantity of corn and beans; for, although I was with them in September and October, I never saw one kettle of either, they always using wild oats [wild rice] for bread. This production nature has furnished to all the most uncultivated nations of the N. W. continent, who may gather in autumn a sufficiency which, when added to the productions of the chase and the net, insures them a subsistence through all the seasons of the year.[5]

This band are reported the bravest of all the Sioux, and have for years been opposed to the Fols Avoin Sauteurs, who are reported the bravest of all the numerous bands of Chippeways.[6]

They resided from Prairie du Chien for 35 miles up Minnesota river. The Kahra, a Dakota band, are called by Coues the "Wild Rice Sissetons."[7] They extended from White Rock to Big Stone, or Inyantonka lake, on Minnesota river.

A little later Schoolcraft presented the following facts:

Even during the first part of the nineteenth century the Dakota, who constituted the tribe of lake people, the Mendewakantons, were united in three villages. The

[1] Mémoire sur les Mœurs, Coustumes et Relligion des Sauvages de l'Amérique Septentrionale, par Nicolas Perrot, Leipzig and Paris, 1864, pp. 88–89.

[2] Radisson, Voyages, p. 207.

[3] Relations des Jésuites, 1671, Quebec, 1858, p. 39

[4] La Harpe, Journal Historique, p. 68.

[5] Coues, Pike, vol. 1, p. 344.

[6] Ibid., pp. 242–243.

[7] Ibid., p. 349, note.

first was east of the Mississippi and about 4 miles from the Minnesota river. The second was on the Mississippi river. The third was on both sides of the Minnesota, about 6 miles from its mouth. Lying near the intersection of the roads between these three villages were the low grounds and marshes of sugar maple and wild rice, and here the villagers assembled to make sugar in the spring and to gather rice in the autumn.[1]

The fierce struggle of the Dakota with the Ojibwa at the rice fields is a measure of the value they put upon them. Among them, as among the Ojibwa, there were rice villages. La Harpe mentions three such, as follow: "Les Psioumanitons, village des chercheurs de folle avoine" (village of wild rice gatherers), "les Psinchatons, village de la folle avoine rouge" (village of the red wild rice), and "les Psinontanhinhintons, village de la grande folle avoine" (the great wild-rice village).[2] He mentions nine Dakota villages west and seven east of the Mississippi. It has been asserted that from the year 1800 until 1851, when they were removed to Redwood reservation in western Minnesota, the Dakota east of the Mississippi, to the number of 2,000, used wild rice largely. "Even after that a considerable number would visit the rice fields every fall to gather what they could 'til 1862, when the Minnesota massacre occurred, and they were removed to the Minnesota river. A few stragglers remaining in Minnesota still gather some."[3] The above letter does not speak of rice gathering by the western Dakota, but two of the wild-rice villages mentioned by La Harpe were west of the Mississippi, and, as has been shown and will be shown later from the testimony of maps, Minnesota river had immense wild-rice fields, while a few bodies of water west of the Mississippi bear the Dakota name for wild rice.

Considering all the data presented, it is probable that the estimate of 2,000 wild rice producing Dakota Indians is too conservative for the earlier part of the nineteenth century; and it is believed that between 5,000 and 7,000 Dakota Indians used wild rice at the time the Ojibwa were nominally in control of the territory east of the Mississippi. None of the Dakota Indians on reservations have access to wild rice at the present time.

The Menomini

From the point of view of the present memoir the Menomini Indians are unique. From the year 1634 they have consumed wild rice in large quantities. Unlike other Indians who, for short periods, have been named because of their intimate relations with the grain, the Menomini have always been known, so far as Indian tradition and authentic history are concerned, as the "Wild-rice Indians" par excellence.

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[1] Schoolcraft, Indian Tribes, vol. II, p. 97.

[2] La Harpe, Journal Historique, pp. 69, 70.

[3] Letter of Reverend John P. Williamson, Greenwood, South Dakota, January 21, 1899. Mr Williamson and his father before him have been lifelong missionaries to the Dakota Indians.

In 1634, when Sieur Jean Nicollet first visited Green bay, he found there a tribe of Indians lighter in complexion than their neighbors and remarkably well formed. They subsisted largely on wild rice, called "in their language *manoma*—from which they took their name; their own term being Omanominewak (Wild rice men)."[1] According to Hoffman the word "Menomini" is derived from *Omä'nominĕ'ŭ* (*mäno'me*, rice, and *inä'neŭ* or *inä'ni*, man). This is the name of the tribe in their own language, the Algonquian, though they pronounce it more as though it were spelled "Menomoni." The French named them "Folle Avoine," "Wild, Mad, or False Oat." From the above Indian and French terms and their English translations Hoffman records eighty-four synonyms by which these Indians have been known in written history.[2] Inasmuch as these synonyms are accessible in his monograph, they are not reproduced here, but a few synonyms supplementary to his list are presented:

FALLISAVOINES. Wisconsin Historical Collections, vol. XII, p. 78.

FAULSAVOINS. Ibid., vol. XIII, p. 443.

FOLLAVOINE. Ibid., vol. XI, p. 265.

FOLLE AVOINI. Buchanan, James, Sketches of the History, Manners, and Customs of the North American Indians, vol. V, p. 139 (New York, 1824).

FOLLOWENS. Long, Voyages, p. 146.

MAHNOMONEEG. Tanner, Narrative, p. 315.

MALHOINMI. Carte Particuliere du Fleuve Saint Louis . . . avec les noms des Sauvages du pais, des Marchandises, 1750–60.

MALHONMINES. Radisson, Voyages, p. 201.

MALOMINE. De Vaugondy, map, Amerique Septentrionale, 1750.

MANOMINIS. Wisconsin Historical Collections, vol. XII, p. 79.

MONOMONIS. Map, The Upper Territories of the United States, in Carey's General Atlas, Phila., 1814.

MUNOMINEES. Atwater, Indians of the Northwest, p. 81.

OMANOMINEWAK. Krautbauer in Am. Cath. Hist. Researches, Oct., 1887, p. 152.

WILD RICE INDIANS. Wisconsin Historical Collections, vol. I, p. 52.

Radisson said of the Menomini late in the fifth decade of the seventeenth century: "They weare of a nation called Malhonmines; that is, the nation of Oats, graine y^t is much in y^t countrey."[3] Charlevoix, in 1721, wrote of an island on the western side of Green bay, "upon which is the Village of the Malhomines, which the French call folles Avoines, (wild Oats), probably becaufe they make their common Food of this Grain."[4] From that time until the present there is frequent evidence that these Indians depended greatly upon wild rice. A few instances will be cited. Major Irwin wrote of them in 1820: "The Canadians designate them Folls-avoine . . . wild oats, or rice. This is one of the principal articles on which the Indians subsist in this quarter. It is to be found in great abundance, in the fall of the year . . . It is believed that enough of it could be gathered in the fall,

[1] Krautbauer, in American Catholic Historical Researches, Oct., 1887, p 152.

[2] Hoffman, The Menomini Indians, Fourteenth Annual Report of the Bureau of Ethnology, part 1, pp. 12–14.

[3] Radisson, Voyages, p. 201.

[4] Charlevoix, Voyage to Canada, letter XIX, p. 202.

PERMANENT ASH-BARK WIGWAM OF THE WILD RICE GATHERING OJIBWA

to support several thousand Indians, for one year."[1] He continued: "In the spring they subsist on sugar and fish; in the summer on fish and game; in the fall, on wild rice, and corn, and in the winter on fish and game. Those who are provident, have some rice during the winter."[2] In 1829 wild rice furnished them abundant subsistence.[3] Governor Dodge said of them in 1837–38, they "raise corn on the Oconte, Menominee, and Fox rivers, in small quantities, but depend on the chase, fishing, fowling, and gathering of wild rice for subsistence."[4] Exactly similar reports were made for the years 1844 and 1845.[5]

These Indians are of the Algonquian linguistic stock, and for over two hundred and sixty years have been known to live in Wisconsin near Green bay. It is not known that they came westward with their kinsmen, the Ojibwa, Ottawa, and Potawatomi, but it seems probable that they preceded these others into the wild-rice district. Their habitat has shifted from the Menominee river on the north, between the upper peninsula of Michigan and Wisconsin, where their traditions fix the origin of the tribe, back and forth over the territory west of Green bay as far south as Fox river and Lake Winnebago. In 1852 they moved to their present reservation of ten townships, some 360 square miles, or about 230,000 acres, located in east-central Wisconsin. In August of the following year Oshkosh, their head chief, asked the agency superintendent to permit the tribe to go back to their old rice fields to gather rice.[6] Most of their rice is gathered at present in Lake Shawano, which lies about 8 miles south of the reservation.

The following statistics of Menomini population have been gathered:

Year	Warriors	Women	Children	Total	Authority
1718....	80–100	.....	.....	.....	Doc. Coll. Hist. New York, vol. IX, Albany, 1855, p. 889.
1761....	150	.....	.....	.....	Wis. Hist. Colls., vol. I, 1854, p. 32.
1820....	600	900	2,400	3,900	Morse, Report, New Haven, 1822, app., p. 51.
1842....	.....	.....	.....	2,464	Indian Affairs Report, 1843.
1850....	.....	.....	.....	500	
1856....	.....	.....	.....	1,930	
1857....	358	425	914	1,697	
1863....	.....	.....	.....	1,724	Indian Affairs Report, 1863, p. 502.
1872....	.....	.....	.....	1,362	Indian Affairs Report, 1872, p. 384.
1882....	.....	.....	....	1,500	Indian Affairs Report, 1882, p. 344.
1884....	.....	.....	.....	1,400	Indian Affairs Report, 1884, p. 300.
1890....	.....	.....	.....	1,311	Indian Affairs Report, 1890, p. 462.
1892....	.....	.....	.....	1,335	Indian Affairs Report, 1892, p. 798.
1898....	.....	.....	.....	1,375	Indian Affairs Report, 1898, p. 612.

[1] Morse, Report, app., p. 47. Dr Morse (ibid., app., pp. 51, 52) also reports communications from Messrs. John Lawe, Jas. Porlier, Peter, Augustin, and Louis Grignon, and Laurent Fily to the same effect. These gentlemen were traders at Green bay and vicinity for half a century.

[2] Ibid., app., p. 48.

[3] House of Reps., War Dept., 20th Cong., 2d sess., House of Reps. Doc. No. 117, Indian Affairs; see also Schoolcraft, Indian Tribes, vol. III, pp. 591, 607, for the years 1829 and 1832.

[4] Indian Affairs Report, 1837–38, p. 16.

[5] Op. cit., 1844–45, p. 131, and op. cit., 1845, p. 494.

[6] Op. cit., 1853, p. 52.

It is believed that an average of 1,500 souls is a safe estimate for the number of this tribe during the last two hundred and fifty years.

The Sauk and Fox

The tribes of the Sauk and Fox Indians have been closely associated for a long time. They are Algonquian, and therefore kindred to the Ojibwa and Menomini. It is believed that they, like the Menomini, reached the wild-rice district before the Ojibwa, and that they and all their kinsmen were at one time driven westward by the Iroquois. These latter Indians were so fierce that the Algonquians said of them, "These are not men; these are wolves."

The Sauk have been called O-saug-eeg, Ousakis, Saukies, Sakis, Sacs, or "Those who live at the entry." Warren said that they were called O-dish-quag-um-eeg, or "Last-water people."[1] Armstrong wrote of the Osaukies, or "Men from the white earth or clay," that they came from Canada by way of Michigan, stopping for a short time at Saginaw (Sauganau), which was named after them. They soon came to Wisconsin and formed a lasting alliance with the Fox Indians.[2]

Warren called the Fox Indians O-dug-am-eeg, or "Opposite-side people," and says that they were driven westward by the Iroquois and settled southwest of Green bay, Wisconsin, where they were allies of the Sauk Indians. Armstrong spoke of them as the "Men from the red earth."[3] The French called the Fox Indians "des Renards," and it is through the French that the English name is derived. On a map of 1672, and also on Marquette's map of 1673, they are termed "STAGAMI," and are located on the present Fox river, between Green bay and Lake Winnebago. It has been noticed that these Indians were in villages in the wild-rice fields of St Croix and Chippeway rivers, and that later, after being dislodged by the Ojibwa, they resided on Wisconsin river. That they were producers of wild rice is unquestioned, but it is regretted that so little is known of them during the period when they must have depended largely upon the grain.

The Sauk and Fox tribes united and migrated southwestward early in the eighteenth century. On good authority it was claimed in 1822 that more than a century previous, both of these tribes, who then inhabited the country on Green bay and Fox river, were conquered and driven away by the Menomini, aided by the Ottawa and Ojibwa; and the Menomini title to the territory is admitted to be good by these other four tribes; that is, the Sauk, Fox, Ottawa, and Ojibwa.[4]

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[1] Warren, History of the Ojibways, p. 32.
[2] Armstrong, The Sauks and the Black Hawk War, p. 9.
[3] Armstrong, op. cit., p. 11.
[4] Morse, Report, app., p. 57.

Carver said that there was a Sauk town on the Ouisconsin [Wisconsin] river near the portage to the Fox river where "they raife great quantities of Indian corn, beans, melons, &c. fo that this place is efteemed the beft market for traders to furnifh themfelves with provifions, of any within eight hundred miles of it."[1] It was about the year 1730 that "Sauk-e-nug," the Sauk capital, was built on Rock river some 3 miles south of Rock Island, Illinois. In the year 1804 the Sauk and Fox together ceded southern Wisconsin, or such land as lay east of the Mississippi and as far south as "the mouth of the Ouisconsing river, and up the same to a point which shall be thirty-six miles in a direct line from the mouth of the said river; then in a direct line to the point where Fox river (a branch of the Illinois) leaves the small lake called Sakaegan; thence down the Fox river to the Illinois river, and down the same to the Mississippi." In 1825 the Sauk and Fox relinquished all claim to territory east of the Mississippi and north of Iowa river.

In 1826 it was written of the Sauk that "they don't make use of wild rice, because they have none in their country except when they procure some from the Wenebagoes or Menominie Indians."[2] It is probable that neither of these tribes used wild rice extensively after about the middle of the eighteenth century, when the Fox Indians were driven from their Wisconsin river retreat.

Each of these two tribes numbered probably about 1,500 or 2,000 souls during the period when they produced wild rice. In 1823 Beltrami said that there were four Fox villages along Wisconsin river, with a total population of 1,600.[3] Pike reported in 1806 that in the three Sauk villages there were 700 warriors, 750 women, 1,400 children, and probably a total number of 2,850 souls. Of the Fox Indians he said there were also three villages, and 400 warriors, 500 women, 850 children, a total, probably, of 1,750.[4]

The Winnebago

The Winnebago Indians belong to the Siouan linguistic stock. They were the rear-guard of their kinsmen, the Dakota, for, while the latter, in their movement westward, passed on to the headwaters of the Mississippi and its large tributaries, the Winnebago halted near Lake Michigan. They long occupied a strip of territory lying due east of the Mississippi to the foot of Green bay.

Schoolcraft says the Algonquian called the Puants (Winnebago) "Wee-ni-bee-gog," from the Algonquian *weenud* (turbid or foul), and

[1] Carver, Travels, p. 47.

[2] Account of the Manners and Customs of the Sauk Indians (manuscript), 1826, by Thomas Forsyth (in Wisconsin Historical Society's manuscript collection), pp. 39–40.

[3] Beltrami, Pilgrimage, vol. II, p. 169.

[4] Pike, Expeditions, table F, to face p. 66, app., part 1.

nibeeg (the plural form for water).[1] Again he says that the Winnebago call themselves "Hochungara," or Trout nation, and "Horoji," or Fisheaters.[2] Hoffman presents a Menomini legend of the origin of the name.[3] While Mä'näbŭsh, a mystic personage who instructed mankind in the mysteries of the Mitä'wit, or medicine-society, was lying asleep, some Indians came along and stole all of his roasting birds. He awoke in time to see some very dirty and poorly dressed Indians escaping in their canoes. "Then he called to them and railed them, calling them 'Winnibē'go! Winnibē'go!' And by this term the Menomini have ever since designated their thievish neighbors."

They were at Green bay when Nicollet came there in 1634, living in the wild-rice fields at peace with their Algonquian neighbors, the Menomini, Sauk, Fox, Maskotin, Ottawa, Ojibwa, Potawatomi, and Kickapoo. Schoolcraft says that their earliest traditions place them at Red banks, on the eastern shore of Green bay. There is no doubt, however, that they came into this territory with their Dakota kinsmen, and through preference exchanged the habitat of the prairies for the forests, lakes, and rivers. Lake Winnebago and Winnebago county, Wisconsin, mark their old habitat; in 1658 they were called "Ouinipegouek," and occupied this territory.[4] It is impossible to locate with accuracy any of these early Wisconsin and Minnesota tribes, as their possessions, or claims to possessions, greatly overlapped, and opportunities for correct map-making of the Northwest in the early days of its settlement were far from the best.

The Winnebago have been producers of large quantities of wild rice; in fact it has been, and still is, a staple food with many of them. These Indians ceded their Wisconsin lands, and many of them took a reservation in Minnesota in 1859;[5] but they gradually returned, and in 1897 there were 1,447 of them scattered along Black river and its vicinity in Wisconsin. These are the only Winnebago now in the wild-rice district. Of the numerous Indians of this tribe near the Tomah Indian school in Monroe county, Wisconsin, the school superintendent, under date of August 25, 1898, wrote: "The Winnebago Indians here are nearly all full-bloods, and they are about as far from civilization as they were fifty years ago."[6] The Winnebago in a winter village near Elroy, Juneau county, Wisconsin, in the winter of 1898–99, said that they now gather annually large quantities of wild rice in the sloughs of the Mississippi at La Crosse, Wisconsin, and also on the Iowa side of the stream.

The following estimates of Winnebago population have been made.

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[1] Schoolcraft, Indian Tribes, vol. III, p. 277.

[2] Ibid., vol. I, p. 277.

[3] Hoffman, The Menomini Indians, op. cit., p. 205.

[4] Relations des Jésuites, 1658, p. 21.

[5] See C. C. Royce, Indian Land Cessions in the United States, in the Eighteenth Annual Report of the Bureau of American Ethnology, part 2.

[6] Indian Affairs Report, 1898, p. 399.

PORTABLE BIRCH-BARK AND RUSH-MATTING WIGWAM OF THE WILD RICE GATHERING OJIBWA

Pike reported that in 1806 there were 450 warriors, 500 women, and 1,000 children—a total population of 1,950 in the seven Winnebago villages.[1] In 1812 it was said that there were 700 warriors, 1,000 women, and 1,800 children, or a total of 2,800, while in 1820 there were 900 warriors, 1,300 women, and 3,600 children, a total of 5,800.[2] Probably 2,000 souls is a very conservative estimate of the number of Indians of this tribe who used wild rice during the period with which this memoir deals.

The Potawatomi

It will be remembered that the Potawatomi (Potewa'tmik) are members of the great Algonquian stock, which comprised also the Ojibwa and Ottawa, and which split into three sections at Sault Ste Marie. The present Indians, the "Potta-wat-um-ees," or "Those-who-make-or-keep-a-fire," came southward along the west shore of Green bay and Lake Michigan after the separation alluded to. In 1658 they were reported to be the nearest tribe to the settlement of St Michel near the head of Green bay.[3] They were then called Oupouteouatamik, and numbered 700 men, or 3,000 souls, including 100 of the Petun or Tobacco tribe. Marquette's map of 1673 places the Pstestami (Potawatomi) between Green bay and Lake Michigan. They undoubtedly consumed wild rice at this time, were noted as traders, and were the middlemen between the French and Indians farther inland. Their trading instinct doubtless in large measure explains their departure, for when the French settled at Detroit, some of the Potawatomi followed them there; others stopped at St Joseph river, Michigan, where they produced wild rice (to which numerous references will later be made); still others stopped at Chicago, where they used wild rice, as will also be shown.

Though none of this tribe resides on a reservation in the wild-rice district, yet in 1883 it was said that 280 of them were nomads in Wisconsin, and in 1897 the same estimate of population was made. Doubtless 2,000 or 2,500 of these Indians consumed wild rice at one time.

The Maskotin

In 1658 Père Gabriel Druillettes spoke of the "Makoutensak," the Maskotin, as being the third "nation" west of St Michel at Green bay. A map of 1672 places the "Mascoutens ou Nation du Feu" along the southwest side of Lake Winnebago. On Marquette's map of 1673 the Maskstens are on Fox river above Lake Winnebago. In 1718 the "Feu" were at Chicagou (Chicago), according to a French map.[4] Hennepin's map of 1687 places the Mascoutens, or Nation du Feu, south of the mouth of Fox river. According to others they

[1] Pike, op. cit.
[2] Morse, Report, app., p. 59.
[3] Relations des Jésuites, 1658, p. 21.
[4] Carte de la Louisiane et du Cours du Mississipi.

were south of Green bay in 1736 with 80 warriors, and in 1764 Hutchins reports them still there, but with 500 people. A map of the middle of the eighteenth century locates them south of Wisconsin river.[1] They then vanished from history. It is sometimes maintained that they allied themselves with the Kickapoo and disappeared among them. Schoolcraft says that the Ojibwa and Ottawa drove them southward as they invaded Wisconsin,[2] and that among the traditions of the Algonquian tribes which inhabit the shores of the upper lakes is one that they drove to the south, into the present area of Wisconsin and Illinois, two unknown tribes whose names are "Miscotins" and "Assigunaigs."[3]

In 1671 Father Allouez quotes a "master of a Maskotin feast" as saying "they [the Dakota] have eaten me to the bones, and have not left me a single one of my family in life." In Allouez' words, "il sembloit que ce fust un festin pour combattre, et non pas pour manger . . . Vous avez entendu parler des peuples qu'on appelle Nadoüessi; ils m'ont mangé jusqu'aux os, et ne m'ont pas laissé un seul de ma famille en vie."[4] Thus at that early date the Maskotin were sorely pressed by a fierce and powerful enemy, but it can scarcely be doubted that these Indians, in considerable numbers, occupied the wild-rice region of Wisconsin prior to its occupancy by the Sauk, Fox, and Dakota Indians, as these latter are known to have occupied it before they were driven out by the Menomini and Ojibwa.[5]

The Assiniboin

The "Assinipoualaks" (Assiniboin) or "Warriors of the rocks," are a Siouan tribe which, perhaps in the sixteenth century, after quarreling with their kinsmen, the Dakota, sought refuge among the *assin* or rocks of the Lake of the Woods. Prof. W J McGee says they separated from the Yanktonai Sioux.[6] It will be remembered that the division of the Ojibwa which went westward along the northern shore of Lake Superior found the Assiniboin and formed a lasting peace with them. According to Warren this would have been in the latter part of the fifteenth century; and a letter which appears to have been written at Fort Bourbon on Hudson bay about 1695 says that the Assiniboin separated from the Dakota a long time ago. It reads: "On prétend même que ces Assiniboëls sont une Nation Sciouse, qui s'en est séparée il y a long-temps."[7] It is therefore believed that the

[1] Map of America, John Bowles & Son, London [1740–1750].
[2] Schoolcraft, Indian Tribes, vol. VI, p. 203.
[3] Ibid., vol. I, p. 305.
[4] Relations des Jésuites, 1671, p. 46.
[5] Mr James Mooney, in a recent conversation, advanced the plausible theory, that this tribe was a Potawatomi people, called by the recognized Potawatomi bands Mûshkoden'sûk or (Little) Prairie people. They are now on a reservation in Kansas.
[6] McGee, The Siouan Indians, Fifteenth Annual Report of the Bureau of Ethnology, p. 190.
[7] Lettres Édifiantes, Paris, 1781, vol. VI, p. 30.

Assiniboin separated from their kinsmen as early as the sixteenth century.

Marquette said, in 1670, "The Assinipouars, who have about the same language as the Nadouessi [Sioux, Dakota], are westward from the Mission of the Holy Ghost [at La Pointe, Wisconsin], at a lake fifteen or twenty days' journey distant, where they gather wild rice and where the fishing is very good."[1] Perrot writes of them: "The Chiripinons, or Assiniboulas, sow wild rice in their marshes, which they afterward gather; but they can transport it home only during the period of navigation."[2]

The Kickapoo, Ottawa, and Huron

Besides the Indians previously considered in this chapter, there were several thousand Kickapoo, Ottawa, Huron, and other Indians who lived among them in the wild-rice district.

According to maps of the years 1718, 1740–1750, and 1755, the "Outaouacs" (Ottawa) were a short distance south of Lake Superior. Their numbers at the time are not known.

Radisson and Groseilliers claim to have made, a year or two prior to 1660, a canoe voyage up Lake Superior as far as Chequamegon bay, and from there to have visited a village of refugee Huron Indians living on a lake whose headwaters drained into Chippeway river. Perrot gives their number as 100. About 1660 they went to the Noquet islands at the mouth of Green bay. They moved two or three times more in the northwest, and finally went to Detroit. They were in Wisconsin probably from about 1652 to 1670.[3]

Before 1716 the Kickapoo were reported on the west side of Green bay on the present Fox river.[4] A map of 1720 represents them south of Green bay, while the territory occupied by them in 1716 had a Kikalin village.[5] The map last cited has also "Villages of 4 Nations" near the mouth of Fox river.

In this chapter only the most conservative estimates of Indian populations have been given, and by these it is proved that fully 30,000 Indians used wild rice at one time. Estimating the Ojibwa at 10,000, the Dakota at 6,000, the Menomini at 1,500, the Sauk and Fox at 2,500, the Winnebago at 2,000, the Potawatomi at 2,000, there are 24,000 souls. Besides these there are the Assiniboin, Maskotin, Kickapoo, Huron, Ottawa, and others, all of whom might easily swell the number to a total of 30,000 souls.

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[1] Verwyst, Missionary Labors, Milwaukee and Chicago, 1886, p. 104.

[2] Perrot, Mémoire, p. 52.

[3] Shea, The Indians of Wisconsin, in Wisconsin Historical Collections, vol. III, p. 125 et seq.

[4] Herman Moll, Map of North America, printed before 1716.

[5] Moll, A New Map of the North Parts of America claimed by France, 1720.

Chapter IV

PRODUCTION

Introduction

The world is fortunate indeed that it has turned its attention to the scientific and historic study of human efforts and institutions before primitive man has entirely disappeared. When attention is directed to the effort of production, one is convinced that the first act was simply that of appropriation—as of a club to strike, a stone to throw, a hole to crawl in, fruit to eat. One can not make use of commodities in the past or in the future; he must use them in the present. The hungry primitive man was satisfied when he found food to eat. His want was a present want, but he was often hungry when he could not find the desired food; so at the moment when he conceived the thought of keeping food from a stock of present plenty until a time of future need he took a highly important step in the varied progress of civilization.

In the study of vegetal food production the first attention should be given to indigenous products which require no care, or, in other words, to purely native and spontaneous products.[1] Wild rice is a plant of this sort. It was so seldom planted and the stalks were so seldom cared for that in this regard it is near the bottom of the ladder in the ascent of cultivated plants. Production with regard to wild rice, therefore, is confined chiefly to the gathering and care of the seed. After a general description of the processes of harvesting and preparing the grain, a detailed study of each step in the production will be made, as the methods vary greatly in different localities.

The grain is matured in the latter part of August or in September. Shortly before that time the women often go to the rice fields in their canoes and tie the standing stalks into small bunches (plate LXX). When the grain is sufficiently mature, two persons, generally women, go together into the fields to garner the seed. The stalks are usually so close together in the harvest field that it is impossible to use a paddle, so the canoe is pushed along by a pole. As the harvesters pass among the rice, standing 4 or 5 feet above the water, one of the women reaches out, and, by means of a stick, pulls a quantity of the stalks down

[1] It is not meant here that all agriculture began with such food products as are produced spontaneously in great abundance. It is quite probable that want did much toward causing primitive people to cultivate the soil. See W J McGee, The Beginning of Agriculture (American Anthropologist, Washington, October, 1895).

INDIAN WOMAN ON HER WAY TO THE RICE BED TO TIE THE STALKS

over the side of the canoe. Then with a similar stick held in her free hand she beats the fruit head, thus knocking the grain into the bottom of the canoe. In this way the grain on both sides of the path is gathered. When one end of the canoe is full, the laborers exchange implements, the harvester becoming boatman and the boatman harvester, and the other end of the canoe is filled on the return trip to the shore. The grain is then taken out, dried or cured, its tenacious hull is thrashed off, and, after being winnowed, it is stored away for future use.[1]

"In the golden-hued Wazu-pe-wee—the moon when the wild-rice is gathered;
When the leaves on the tall sugar-tree are as red as the breast of the robin,
And the red-oaks that border the lea are aflame with the fire of the sunset,
From the wide-waving fields of wild-rice—from the meadows of Psin-ta-wak-padan,
Where the geese and the mallards rejoice, and grow fat on the bountiful harvest,
Came the hunters with saddles of moose and the flesh of the bear and the bison,
And the women in birchen canoes well laden with rice from the meadows."

Gordon, Legends of the Northwest, pp. 58–59.

Sowing and Other Early Care

Perrot wrote that the Assiniboin Indians, west and northwest of Lake Winnipeg, Canada, sowed wild rice in their marshes, which they later came to gather. He says: "Les Chiripinons ou Assiniboülas sement dans leurs marais quelques folles avoines qu'ils recueillent, mais ils n'en peuvent faire le transport chez eux que dans le temps de la navigation."[2]

At the present time, near Rat Portage, Ontario, there are two small lakes in the vicinity of Shoal lake where the Indians (Ojibwa) have sown wild rice, and where they procure quite a harvest.[3]

The Ojibwa Indians at Rice lake, near Crandon, Forest county, Wisconsin, at times both sow the grain and weed out the large flat grass which grows among the stalks.

The Ojibwa Indians of Lac Courte Oreille reservation, Wisconsin, have a tradition that all the wild rice between their present habitat and Red river of the North has been sown by their ancestors.[4] The finest harvest field now on the reservation is that of Lac Courte Oreille river. It is a sown field. Päskin', a woman estimated to be slightly over a hundred years of age, says that she remembers when wild rice was

[1] Attention is called to the following published illustrations of wild rice harvesting by the Indians: 1, Ojibwa Indians: Schoolcraft Indian Tribes, vol. III, pl. 4, p. 64; ibid., vol. VI, p. 552; same by Stickney, Indian Use of Wild Rice, American Anthropologist, vol. IX, pp. 115–121, April, 1896; 2, Chicago Tribune, Sunday edition, October 6, 1898, p. 1. 3, An early picture of the harvest: Bressany, Relation Abrégée de Quelques Missions, Montreal, 1852, p. 237. 4, Dakota Indians: Catlin, Illustrations of the manners, customs, and condition of the North American Indians, 10th ed., vol. II, pl. 278, p. 208, London, 1866. 5, Wisconsin Indians: Olney, Quarto Geography, 1849, p. 37; Bryant, Popular History of the United States, 1878, vol. II, p. 514.

[2] Perrot, Mémoire, p. 52.

[3] Pither, letter, December 5, 1898.

[4] See chapter VI.

gathered in Prairie lake, Barron county, Wisconsin, and sown in Lake Chetak, Rice lake, Bear lake, Moose-ear lake, and Lac Courte Oreille river, all in the near vicinity of their reservation. All of these waters are harvest fields for the Ojibwa of Lac Courte Oreille reservation today.

Awa'sa sowed the grain in Lac Courte Oreille river, and his grandchildren's families now harvest the crop. Several other families on the reservation gather wild rice in harvest fields which they themselves have sown. In the fall of 1899 at least one family gathered grain with which to sow a private field.

TYING

Various reasons are assigned for tying the standing stalks into little bunches or sheaves while the grain is in the milk stage (plates LXXI, LXXII). The stalks are tied with strips of bark, and are left standing two or three weeks to ripen.[1]

Hennepin said in 1697 that the "Nadouessiou" (Dakota) Indian women at Mille Lacs, Minnesota, tie the stalks together with whitewood bark (basswood, *Tilia americana*) to prevent it from being all devoured by flocks of duck, swan, and teal.[2] The unknown author of the Memoir of the Sioux, written some time after 1719, says that the Titoha (a Dakota tribe living 50 leagues west of St Anthony falls, in Minnesota) tie the wild rice into bundles while it is standing, in order that it may die (ripen); then when it is dead they gather it.[3] In 1820 Edward Tanner wrote that the Ojibwa Indians at Sandy lake, Aitkin county, Minnesota, formerly gathered the tops into large shocks, "to render the collecting of the grain easier when ripened. By this means they also obtained it in much larger quantities than at present."[4] In 1820 they did not tie it into bunches.

General Ellis wrote of the Indians in Green Bay county, Wisconsin: "One mode is to go into this 'standing corn' with their canoes, and taking as many stalks as they can compass with their hands, give them a twist and kink, and then turn the bunches downward, leaving them to ripen on the stalks. This gives the party twisting the bunches, a kind of pre-emption to so much of the rice, which before was all common."[5] Carver said: "Nearly about the time that it begins to turn from its milky ſtate and to ripen, they run their canoes into the midſt of it, and tying bunches of it together juſt below the ears with bark,

[1] Rodman, letter, November 11, 1898; Schoolcraft, Summary Narrative, p. 130; Eleventh Census of the United States, 1890; Indians, p. 340.

[2] Hennepin, Nouvelle Decouverte, p. 313* (fol. 0*4); Williamson, letter, November 30, 1898; Flint, Geography and History, vol. I, pp. 84–85; Martin Bressani, Relation Abrégée de Quelques Missions, p. 332; Brown, Western Gazetteer, p. 267; Stuntz, letter, November 24, 1898.

[3] Neill, in Macalester Coll. Cont. Dept. of Hist., Lit., and Pol. Sci., ser. 1, number 10, St. Paul, 1890, pp. 235–236.

[4] Edward Tanner, in Detroit Gazette, December 8, 1820.

[5] Ellis, Recollections, p. 265.

A NARROW BED OF WILD RICE TIED IN BUNCHES OR SHEAVES

leave it in this fituation two or three weeks longer, till it is perfectly ripe. About the latter end of September they return to the river, when each family having its feparate allotment, and being able to diftinguifh their own property by the manner of faftening the fheaves, gather in the portion that belongs to them."[1] E. S. Seymour wrote: "In the first place, to protect it from black birds, they collect the grain in bunches while the grain is in the milk, and cover each bunch with a band made of the bark of the linden or bass wood tree."

The Ottawa Indians used to so tie the bunches that a pathway was left between the rows: "Vn peu auparauant qu'elle monte en espy, les Sauuages vont en Canot lier en touffes l'herbe de ces plantes, les separant les vnes des autres autant d'espace qu'il en faut pour passer vn Canot lors qu'ils reuiendront en cueillir le grain."[2] There is little doubt that all of the tied rice was similarly arranged in rows, as that would be the simplest manner to tie it, and would afford the easiest way to gather it when the laborers used canoes.

It is seen from the above quotations that the chief reason for tying the stalks is that the grain may be saved until it is matured. Many kinds of birds consume it with avidity when they can get at the heads, and if it is tied up it is also much less liable to be destroyed by rain or wind storms.

The care in tying is shown in a letter by Roger Patterson, government farmer of Bad River reservation, Wisconsin, which is here quoted in part: "About August 15th the squaws, using small canoes, go out along the river and gather together the heads of rice, tying them with bark strings into sheaves, taking care to draw them together gently, so as not to break the stems or roots. After being tied and wrapped with bark strings so that the grain will not waste, it is left standing, supported by the stalks that are not broken, about 2 feet above the water."[3]

The women at Lac Courte Oreille reservation tied their wild rice in the season of 1899 in the following manner: They were camping with their entire family at the field and spent several days at this particular process while the grain was in the milk (see plate LXXII). A large round ball of "bast," the bark string with which they were to tie the bunches, was ready behind them in their canoes. This ball is often a foot in diameter and is made of strings of the green inner bark of basswood; it is so wound that it unwinds from the inside, like the modern binding twine. The string averages a quarter of an inch in width. A forked pole is used to push the canoe into the thick, heavy mass of stalks, it being impossible to paddle in such a forest, and the mud bed being too soft to allow a straight pole to be used. Then the

[1] Carver, Travels, p. 523.
[2] Relations des Jésuites, 1663, p. 19.
[3] Patterson, letter, November 23, 1898. See also Rodman, letter, February 14, 1899.

woman reaches out around the stalks with a curved stick and hauls them toward the side of the canoe (see figure 47). Both this sickle-shaped stick and her hands are employed to form the stalks into a bunch. When the bunch is formed the woman reaches up to her shoulder and pulls over the bark string, which passes from the ball behind her through a loop on the back of her dress immediately below the shoulder. While holding the stalks with one hand, she lays the string down along the bunch for several inches, and, suddenly checking this movement, begins rapidly to wind the string around the stalks toward their tops. In this way she makes secure the lower end of the fastening by putting several wrappings of the string around it. She winds the stalks

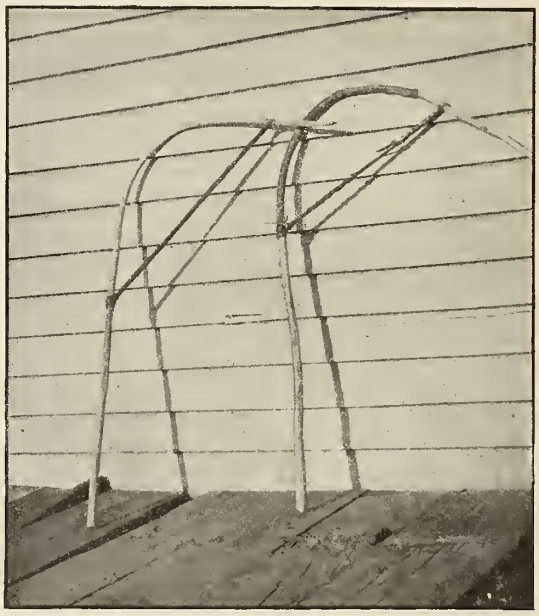

FIG. 47—Sickle-shape sticks used to draw the stalks within reach for tying.

for about 2 feet, and then bends the top of the bunch over in the form ∩ and fastens it to the upright part by a single loop and single knot of the string, which is then cut with a knife, and the tying process is completed. These bunches are usually 3 feet long from the lowest wrapping to the top of the stalks, but the stalks are usually not tied closer than 10 or 12 inches to the ends. Such long bunches are made necessary by the uneven length of the stalks. The fruit heads are quite uniformly 1 foot long. Probably one-half of the kernels are securely wrapped with the string, while the others, at the top of the stalks, are kept from jarring out by the steady support of the bunch. As much as 8, 10, and 12 feet of the string is used to tie a single sheaf.

TIED BUNCHES OF WILD RICE

The bunches are made with great uniformity and regularity. A row is tied on both sides of the canoe, and when the limit of the field is reached the laborer turns around in the canoe, and returning, ties two other rows by the side of and parallel to the last. The fields at this period are very attractive. The graceful bunches and regular rows, either straight or following the outer limits of the beds, are extremely pleasing to see.

At present the Menomini Indians tie their rice only where the water is too shallow to allow canoes to travel.

The mechanical means necessary in the process of tying are very simple. The canoe (see plate LXXIII) is indispensable. The only material spoken of which is used to tie the stalks is basswood bark in strings or strips. It has also been noticed that at times the stalks were held together by being twisted to form a bunch. A sickle-shaped stick, about 3½ feet long, is used to draw the stalks within reach for tying.

Gathering

The previous process, that of tying, is not an essential one in the harvest of wild-rice grain, though, as has been shown, it is not uncommon. The first necessary step in the entire harvest is the gathering of the seed, and, while the grain is always gathered in canoes or other craft (there is a minor exception among the Menomini), there is, in the gathering, great variety in means and method. It is usually done by women. It is customary for the families which harvest wild rice to move to the fields during the harvest period, which lasts about one month.

In the Algonquian language *manominikewin* means "the gathering of wild rice."[1] *Nin manominike* is "I gather wild rice:"[1] *manominike* signifies "he gathers wild rice"[2] (Wilson spells the same term *munhoomineka*[3]). The wild-rice bag used in harvesting is called *manominiwaj*.[4] In the Dakota language *psin ati* means "to pitch a tent at the rice [fields],"[5] while *tate psin* is "wild-rice wind."[6]

Radisson wrote of the Dakota: "They have a particular way to gather up that graine. Two takes a boat and two fticks, by w^ch^ they gett y^t^ eare downe and gett the corne out of it."[7]

The following account came from Sandy lake, Aitkin county, Minnesota, in 1820:

> It is now gathered by two of them [women] passing around in a canoe, one sitting in the stern and pushing it along, while the other, with two small pointed sticks, about three feet long, collects it in by running one of the sticks into the rice, and bending it into the canoe, while with the other she threshes out the grain. This she does on both sides of the canoe alternately, and while it is moving.[8]

[1] Baraga, Otchipwe Dictionary.
[2] Verwyst, Geographical Names, p. 393.
[3] Wilson, Manual of the Ojebwa Language.
[4] Baraga, op. cit.
[5] Riggs, Dakota-English Dictionary.
[6] Gordon, Legends of the Northwest, p. 58.
[7] Radisson, Voyages, p. 215.
[8] Edward Tanner, in Detroit Gazette, December 8, 1820.

General Ellis wrote that the Indians in Green Bay county, Wisconsin, in pushing the canoe used a "long, light, slender pole, provided with a fork at one end, to prevent its sinking too deep into the soft muddy bottom."[1]

Catlin said of the Dakota that one woman paddled the canoe while the other bent the stalks over and beat out the grain, as is told above.[2] The Dakota used to gather the grain and carry it home in sacks.[3]

The Potawatomi Indians, of southwestern Michigan, gathered the grain as follows: They "would push the boat into the thick rice, bend the tops over the boat, and pound it out with 'rawagikan,' a stick for the purpose."[4]

The Ojibwa women of Bad river, Wisconsin, bend the tied bunches over the side of the canoe, untie the bark band, and beat out the grain with a short stick.[5] It is customary to untie the bunches before beating them.

At Fond du Lac (Lake Superior), Minnesota, two persons of either sex, or both, go out in a canoe, the forward person working it ahead with either a paddle or a forked pole. The one in the stern beats the rice out, using two sticks, one to bend the rice over and the other to beat the heads.[6] Harmon saw the Indians gathering the grain "with a hooked stick, in one hand, and a straight one in the other."[7]

Again we read that the "Fols Avoines" (Menomini) west of Green bay, Wisconsin, beat the grain off into a canoe lined with blankets.[8] Another variation is found in that after the band about the stalks was cut and removed one of the harvesters bent the heads down over the canoe with a stick while the other with a pole beat off the grain.[9]

Dr Hoffman, in his monograph, The Menomini Indians, wrote that, in 1892, "at the proper season the women, and frequently the men as well, paddle through the dense growth of wild rice along the shores of the lakes and rivers, and while one attends to the canoe, the others grasp with one hand a bunch of rice stalks, bend it over the gunwale into the boat, and beat out the ears of rice."[10] In 1899 the Memomini still gathered most of their rice in canoes from untied stalks, but where the water was too shallow for canoes, the stalks were tied, and the grain was beaten out on mats spread upon the water between the rows. The stick with which they beat the heads is called "pawa'qikan."

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[1] Ellis, Recollections, p. 266.

[2] Catlin, North American Indians, vol. II, p. 208.

[3] Williamson, letter, November 30, 1898. This letter reads as though the grain was taken home before it was cured and hulled. Because of the danger from the Ojibwa, who dominated the rice fields during the period covered by the letter, it is not improbable that such was the case.

[4] Pokagon, letter, November 16, 1898.

[5] Patterson, letter, November 23, 1898.

[6] Phalon, letter, December 27, 1898.

[7] Harmon, Journal, p. 142.

[8] Brown, Western Gazetteer, p. 267; also Flint, Geography and History, vol. I, p. 85.

[9] Seymour, Sketches of Minnesota, p. 183; see also Schoolcraft, Indian Tribes, vol. III, p. 62 et seq.

[10] Hoffman, The Menomini Indians, p. 291.

At Rice lake, Ontario, "two go with a birch canoe, into the thickest part of it [the rice field] and with their paddles thresh it [the grain] into their canoe."[1]

Again it is recorded that the Ottawa bend the bunches over the canoe and shake the grain into it: "Le temps de la moisson estant venu, ils menent leurs Canots dedans les petites allées qu'ils ont pratiquées au trauers de ces grains, et faisant pencher dedans les touffes amassées ensemble, les égrainnent."[2]

In all of the above gathering it is simply the grain which is removed. Two instances are found, however, in which the entire fruit-head is cut off and taken to the shore in the canoe, and still others in which the stalks are cut in sheaves and taken thus to the shore.

At Rice lake, Ontario, we find that "one person steered the canoe with the aid of the paddle along the edge of the rice beds, and another with a stick in one hand, and a curved sharp-edged paddle in the other, struck the heads off as they bent them over the edge of the stick; the chief art was in letting the heads fall into the canoe."[3]

At Rat Portage, Ontario, sticks about 2 feet long are used by the gatherer who "strips off the heads."[4] A forked pole is used to push the canoe, but the boatman sits at the bow instead of at the stern. The men and not the women gather the grain there.

At Moose-ear river, Barron county, Wisconsin, in 1892 the women and boys went through the field in canoes, and with knives cut the stalks about 2 feet long. They then tied them in bunches about half as large as a sheaf of wheat, and brought them to the shore.[5] The Green Bay county, Wisconsin, Indians, who made bunches by giving them "a twist and kink," cut these bunches with knives and then brought them to the shore.[6] The late Chief Pokagon wrote of the Potawatomi Indians of St Joseph river valley, Michigan, that "It [wild rice] was sometimes gathered in bundles and kept in that way for winter use."[7]

The Indians at Lac Courte Oreille reservation also gather what they call "green wild rice." When they are at the fields to tie the bunches they strip off the grain into their canoes by simply pulling the closed hand over the fruit-heads. This grain, then in the milk, is parched and consumed during the period immediately before the mature grain is gathered, though some families at times cure a sufficient quantity for consumption during the year. The grain in this state is much lighter in color than that which is cured when more mature.

[1] Jones, Life and Journals, pp. 259–260; also Chamberlain, Notes on the History, Customs, and Beliefs of the Mississagua Indians, in Journal of American Folk-Lore, vol. I, 1888, p. 155.

[2] Relations des Jésuites, 1663, p, 19; also Wisconsin Historical Collections, vol. I, p. 74.

[3] Traill, Canadian Crusoes, p. 188.

[4] Pither, letter, December 5, 1898.

[5] John Hutchinson, letter, Elroy, Juneau county, Wisconsin.

[6] Ellis, Recollections, p. 265.

[7] Pokagon, letter, November 16, 1898.

Again, as in the tying of the stalks, the canoe is indispensable in the grain-gathering. At times a blanket is spread in the bottom; the canoe is propelled by a paddle, a pole, or a forked stick, sometimes the canoeman propels the canoe from the stern and sometimes from the bow. The grain may be gathered into the canoe by one person, who may hold the stalks in one hand and beat the grain out with a stick, or with two sticks, or sometimes with a paddle; or two persons may gather the rice, one holding the stalks over the canoe while the other beats out the grain with a pole. Again, the heads are clipped off over one of the sticks, and this is done either with another similar stick, or with a sharp-edged curved paddle. At other times the grain is shaken out. Knives are used to cut the bundles which are tied, sometimes before cutting and sometimes after.[1]

Curing and Drying

As soon as the grain is gathered it is taken to the shore, and ordinarily the curing process begins immediately. This work also usually falls to the women. A slight movement of the stalk by bird or wind or rain will cause the grain to drop into the water when it is fully ripe, hence it must be gathered just before maturity. This necessitates that the rice be artificially ripened or cured; when thus ripened it will not germinate. It is almost always necessary thus to prepare the grain in order that the tenacious hull may be easily removed.

There are three ways in which the grain is cured, viz, by the sun, by smoke and heat from a slow fire underneath it while spread on a scaffolding, and by parching or "popping" in a vessel.

The sun-dried grains become almost black, the kernels varying from black through the browns to greenish grays. The Dakota Indians of Titoha village, about 50 leagues west of St Anthony falls, Minnesota, early in the eighteenth century, sun-cured their rice.[2] On Fond du Lac reservation there is a double process: After being gathered, it is taken ashore, laid on birch bark or blankets spread on the ground, and dried by the sun. After being dried, which takes about twenty-four hours, it is placed in a large copper kettle and roasted over a slow fire, being continually stirred with a paddle until the hull is thoroughly roasted, when it is ready for hulling. On Moose-ear river, Barron county, Wisconsin, in 1892, after the grain was cut, tied in bundles, and brought to the shore, it was spread on a long rack to dry in the sun. The stalks were laid on the rack in two rows, each having the heads in the same direction. Next, a blanket was spread on the ground, and a pole was placed with its lower end on the blanket, while the other end was held at a slight angle above. Over this pole the stalks, with the now dried fruit heads, were held, and the grain

[1] A view of the rice field after the grain has been gathered is shown in plate LXXIV, *a*.

[2] Neill, Memoir of the Sioux, p. 236.

BIRCH-BARK CANOES OF WILD RICE GATHERING OJIBWA

was beaten out with a stick. It was again dried or cured before hulling, but the details of the process could not be ascertained.[1]

The Winnebago, who still gather wild rice in large quantities, cure the grain on a rack over a slow fire.[2] In 1820 the Indians around Sandy lake, Aitkin county, Minnesota, often cured their rice on a scaffolding of small poles about 3 feet high (see plates LXXIV*b* and LXXV*a*). This rack was covered with cedar slabs, upon which the grain was spread. A slow fire was then kept burning beneath until the kernels were entirely dry. It required about a day to dry a scaffoldful. Again, mats were spread over a scaffolding, on which the rice was put and cured by a fire underneath.[3] Marquette said that the Indians on Green bay cured their rice on a wooden lattice, under which they kept a small fire for several days, or until the grain was well dried.[4]

By the Mississagua Indians about Rice lake, Ontario, the following method was employed in 1888:

> Returning to the shore, they stick into the ground pine or cedar branches, so as to form a square inclosure. Within this they drive in forked sticks, upon which cross-pieces are laid, and upon these latter mats of bass-wood or cedar-bark are placed. Under this framework a fire is then lit, and the hedge of green branches serves to keep in the heat. The rice is spread upon the mats, and kept turned about with the paddle until dried.[5]

A recent method of the Dakota was to build a scaffold from 20 to 50 feet long, 8 feet wide, and about 4 feet high. This was covered with reeds and grass, upon which the grain was spread. A slow fire was then kept burning for thirty-six hours so as slightly to parch the hull.[6] At Rat Portage, Ontario, the grain of the first day's gathering is parched, after which a scaffolding is made "with poles about eight feet high and covered . . . with cedar slabs, and over these grass, and then a layer of rice." A fire is built beneath to dry the grain.[7]

The parched or popped rice is lighter in color than that cured in the sun. The kernel is also swelled almost to twice the diameter of the sun-dried kernel, and much of it is slightly popped or cracked open. However, it does not open like popped corn, but most of the grains when parched have a peculiar translucent crystalline appearance. In 1820 Edward Tanner wrote: "One method of curing the rice, and that which makes it the most palatable, is by putting it in a kettle in small quantities, and hanging it over the fire until it becomes parched."[8] Chamberlain says of the Mississagua Indians, above referred to:

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[1] Information of John Hutchinson, Elroy, Juneau county, Wisconsin.
[2] Information of Winnebago near Elroy, Juneau county, Wisconsin, winter village in 1898–99.
[3] Seymour, Sketches of Minnesota, p. 183.
[4] Shea, Discovery and Exploration, p. 9; also Carver, Travels, p. 524.
[5] Chamberlain, in Journal of American Folk-Lore, vol. I, 1888, p. 155.
[6] Palmer, Food Products of the North American Indians, p. 422.
[7] Pither, letter, December 5, 1898.
[8] Edward Tanner, Detroit Gazette, December 8, 1820.

"When it is desired to parch it, the rice is placed in pots over a slow fire until the grain bursts and shows the white, mealy center." [1] The Ojibwa Indians of northern Wisconsin kiln-dried (i. e., parched) their rice in kettles during the fifties and sixties of the nineteenth century.[2] At Bad river, Wisconsin, it is cured in kettles, but is apparently not parched, as is seen from the following: "Indians like it in dry kettles and pots over a fire until it is scorched brown. The hull will then slip off easily." [3] At Rat Portage, Ontario, as soon as the men come ashore with the rice "the women commence to parch the first day's gathering in the manner corn is popped. They use a kettle over a slow fire." [4] The remainder of the harvest is fire-cured on a rack. The Menomini in 1892 did not cure all the rice as soon as it was gathered: at times it was not dried until after the threshing and winnowing.[5] In 1899 the same Indians had two methods of curing the rice. Such grain as was for immediate use was parched in a kettle, while the remainder of the crop was fire-cured on racks covered with rush matting. No new phases of the curing process were learned at the Lac Courte Oreille reservation. They cure the grain both by parching in a kettle and by fire-drying on a rack, the closely laid cross sticks of which were covered with long fresh marsh grass. A birch-bark box, or mocock, is generally used to carry the grain both from the canoe to the rack and from the drying rack to the place of threshing. Although these Indians esteem the parched rice more highly than the fire-cured variety, yet, on account of the extra labor in parching, they fire-dry fully four times as much as they parch.

Not many mechanical implements are used in curing the rice. It is sun-cured on blankets, on birch bark, and on scaffolds of sticks. It is fire-cured and parched in kettles. Scaffolds are covered with sticks, cedar slabs, reeds, grass, and mats of basswood and cedar bark. These scaffolds are at times nearly surrounded by a hedge of pine or cedar branches. A paddle is used to stir the grain while parching in the kettle, and also at times while drying on the rack.

Thrashing

From the time the grain is removed from the fruit head until it is thrashed, it is covered with a close-fitting hull. The grain while in this dress appears almost exactly like a long-bearded oat (see plate LXXVI). With few exceptions all the preceding work of harvesting is done by the women, who, at times, are assisted by the children. The work of hulling falls to the men, or now and then to the boys, only two instances being noted in which the women did this work.

There is little question that woman was man's first thrashing-machine, and that her hands were first employed to separate the seeds from

[1] Chamberlain, op. cit., p. 155.
[2] Stuntz, letter, November 21, 1898.
[3] Patterson, letter, November 23, 1898.
[4] Pither, letter, December 5, 1898.
[5] Hoffman, op. cit., p. 291.

A, WILD-RICE FIELD AFTER THE HARVEST

B. DRYING RACK FOR GRAIN

the fruit head and hull. It seems also true that as soon as small seed was gathered in any considerable quantity the feet were taught to do the work of hands. Here, then, is the invention of the treadmill thrashing-machine. This is the power mostly employed in the thrashing of wild rice, although sticks are used—sometimes like flails and again like churn dashers. The hull is also rubbed or shaken off in blankets and baskets.

Along the west shore of Lake Koshkonong, in Jefferson county, Wisconsin, a great many holes were yet visible in 1895 which were the basins in which the rice hulls had been tread loose from the grain, though it is questionable whether wild rice has been gathered there during the last half century. Fifty years ago Schoolcraft also reported such depressions in great numbers around Rice lake, Barron county, Wisconsin. He said: "A skin is put in these holes, which are filled with ears. A man then treads out the grain. This appears to be the only part of rice making which is performed by the men. The women gather, dry, and winnow it."[1] Edward Tanner said that in 1820 a hole was dug in the ground about a foot and a half deep and 3 feet in circumference, into which a moose skin was usually put. The rice was then put in and trodden out by an Indian. "This is very laborious work," he says, "and always devolves upon the men."[2] Ellis, in speaking of the Indians in Green Bay county, Wisconsin, wrote that a hole is made to contain about 1 gallon; "the rice is then tied up in a deerskin, placed in the hole, and tramped upon with the feet till the hull is removed."[3]

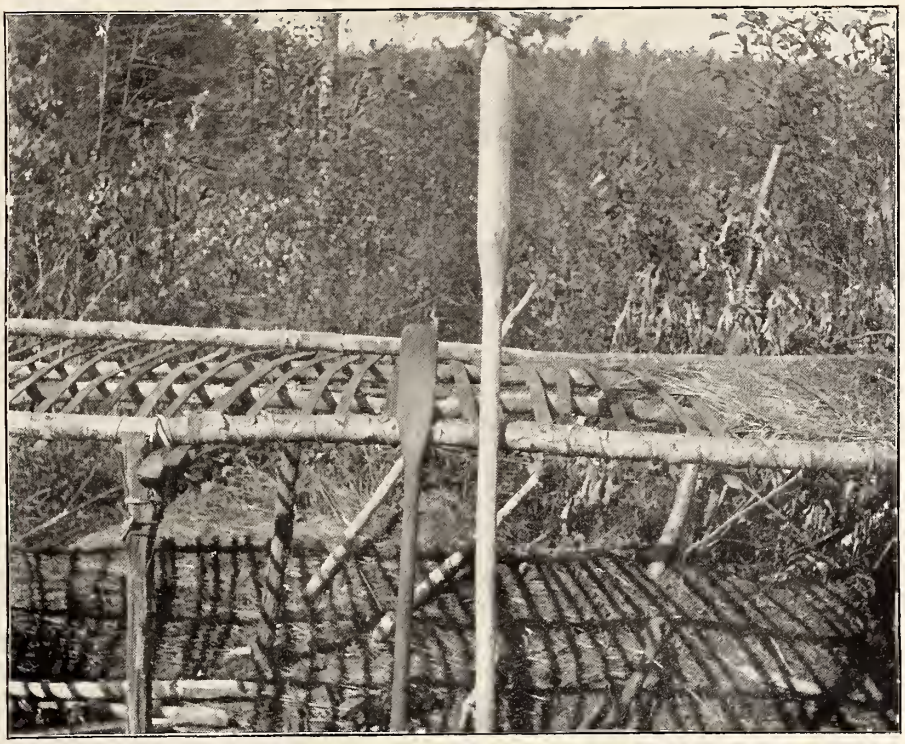
Another variety of the treadmill is found in the following two accounts: "A hole is dug in the ground, and about a bushel of rice is put in it and covered with a deerskin. A man, steadying himself by a stake driven into the ground, jumps about on the grain until the hulls are removed."[4] At Lac Courte Oreille reservation, Wisconsin, two such stakes are driven into the ground and tied together. They project from the ground at an angle of about 60° and lean slightly away from the thrashing hole (see plate LXXV *b*). The man supports himself upon these props while treading out the grain. It is only fair to say that he tries to have a new pair of buckskin moccasins for this work—but sometimes buckskin is scarce. The thrashing holes are of two varieties. One is a simple excavation about 2 feet in diameter and 18 inches deep. This is lined with a deerskin, into which the rice is poured. The thrasher treads directly on the grain. The other kind of hole is similar in size, but is lined at the bottom with a block of wood and at the sides with hand-made staves about half an inch thick, which overlap like clapboards. In this hole also the thrasher treads directly on the grain.

[1] Schoolcraft, Thirty Years with the Indian Tribes, p. 385.
[2] Edward Tanner, Detroit Gazette, December 8, 1820.
[3] Ellis, Recollections, p. 266.
[4] Seymour, Sketches of Minnesota, pp. 183, 184.

Marquette said that they put the rice "in a skin of the form of a bag," after which it was tread out in a hole.[1] The Ottawa in the middle of the seventeenth century tread out the grain in a ditch. This thrashing was done immediately after the gathering, and it was cured after instead of before the thrashing: "Quand le Canot est plein, ils vont le vuider à terre dans vne fosse preparée sur le bord de l'eau, puis auec les pieds ils les foulent et remuent si longtemps, que toute la balle s'en detache."[2] Another glimpse of the worker is obtained from the Dakota in the early seventies of the nineteenth century. To separate the hull from the grain a hole about a foot wide and deep was dug in the ground and lined with skins. About a peck of rice was put in at a time; an Indian stepped in and with a half jump on one foot and then on the other tread the grain free.[3] A letter from Bad River reservation, Wisconsin, mentions that moccasins are worn by the Indian as he treads the grain in a tub.[4] In most places moccasins are usually worn in this work, but in the autumn of 1899 the men at Vermilion Lake reservation, Minnesota, tread their grain out barefoot, and this is their usual method. In the early part of the eighteenth century the Dakota tread out their grain in a wooden trough.[5] In 1829, at Rice lake, Ontario, the boys tramped the grain in a hole lined with a deerskin,[6] and of these Indians the same thing is written again in 1888. In neither case is the grain cured before it is threshed.[7] However, they also thrash it in another manner, to which later reference will be made. The curing and thrashing processes were curiously combined by the Ojibwa in northern Wisconsin in the middle of the nineteenth century. A green or fresh deerskin was staked out and stretched over a quantity of coals. The rice was then poured on this suspended skin and a small boy was put to treading it.[8]

In 1822 the Menomini thrashed their rice in a hole lined with a deerskin. The grain was "pounded with a stick (having a thick end to it), for the purpose of disconnecting the husk from it."[9] Hoffman wrote the same facts seventy years later, saying that the hole was 6 inches deep and 2 feet across.[10] Again he says: "Some of the Menomini women make a special form of bag in which to beat out the rice. This bag is 2 feet wide by from 18 to 20 inches deep, and is woven of bark strands. It resembles very much an old-fashioned carpetbag. After the rice is put into this, the bag is laid into a depression in the ground and beaten to separate the hulls."[10] In 1899 their parched

[1] Shea, Discovery and Exploration, p. 9.
[2] Relations des Jésuites, 1663, p. 19.
[3] Palmer, Food Products of the North American Indians, p. 422.
[4] Patterson, letter, November 13, 1898.
[5] Neill, Memoir of the Sioux, p. 296.
[6] Jones, Life and Journals, p. 260.
[7] Chamberlain, Notes on the History, Customs, and Beliefs, p. 155.
[8] Stuntz, letter, November 24, 1898.
[9] Morse, Report, appendix, p. 47.
[10] Hoffman, The Menomini Indians, p. 291.



A, SECTION OF DRYING RACK

B, STAVE-LINED THRASHING HOLE FOR TREADING OUT THE GRAIN

rice was hulled by tramping in a hole in the earth. The laborer was supported by leaning upon a single stick or light post driven into the ground. But the greater part of the crop, the fire-cured grain, was thrashed otherwise. Usually 15 to 25 bushels were dumped in a ditch 10 or 15 feet long and 2 feet deep; then two men with crooked sticks, *pawa'qwikanäg'tik*, flailed the hulls loose. High screens were erected on both sides of the ditch to check the flying kernels.

At Fond du Lac, Lake Superior, the grain is "churned or pounded" with a stick "shaped like a handspike, being largest at the butt." The hole is about "knee-deep with a solid block in the bottom, the sides being lined with staves, after the fashion of a barrel and of about the same diameter."[1]

Besides treading off the hulls the Indians at Lac Courte Oreille reservation thrash their grain with the churndasher-like sticks. A deep hole is lined with the previously mentioned handmade staves, or a barrel is sunk almost its full length into the ground; this is then nearly filled with the grain. One or two persons, of either sex, pound up and down with the heavy-end sticks—frequently holding two of them (see plate LXXVII *a*).

The Potawatomi of St Joseph river valley, Michigan, sometimes pounded the grain in a sack made for the purpose, and sometimes in a skin-lined hole in the earth. This instance and the ones immediately preceding and immediately following are the only ones in which reference is made to the women as thrashers. The late Chief Pokagon wrote that this work was done by the women and children, and sometimes by the men.[2]

The Winnebago thrash their rice on a blanket laid upon the ground; around three sides of this blanket a cloth screen 2 or 3 feet high is erected in order to confine the flying kernels. The thrasher, man or woman, sits at the open side of the blanket with a stick in each hand and flails the grain.[3] Hoffman refers to exactly the same process for the Menomini in 1892, except that mats are used on the ground and for screens, and a depression is dug, into which the ground mat is laid.[4] The present Mississagua Indians thrash their rice also by shaking it in large open baskets after the grain has been thoroughly dried.[5]

Carver wrote that after the grain was cured the Indians trod or rubbed off the hull.[6] Williamson says that the Dakota beat the grain until the hulls burst, when they will rub off.[7] About 1840 the Potawatomi at Grass lake, Lake county, Illinois, had two ways of hulling their rice. One method was employed immediately after gathering,

[1] Phalon, letter, December 27, 1898.
[2] Pokagon, letter, November 16, 1898.
[3] Information from Winnebago near Elroy, Juneau county, Wisconsin, winter 1898–99.
[4] Hoffman, op. cit., p. 291.
[5] Chamberlain, op. cit., p. 155.
[6] Carver, Travels, p. 524.
[7] Williamson, letter, November 30, 1899; also Kinzie, Wau-Bun, p. 67.

when the grain was roasted on hot, flat stones, thus causing the hulls to crack and loosen, after which they were rubbed off. The other method was to wait until the grain was ready to be consumed, when the kernel, inclosed in its hull, was pounded. This pounded mass was then put into a vessel of water. The hulls, which would remain on the surface of the water, were then skimmed off, and the water and pounded kernels made into a very palatable soup.[1]

The implements for thrashing are neither varied nor numerous. Holes dug in the ground are lined with skins and slabs of wood. Wooden troughs, blankets or mats, bags of skin, and bags of woven bark are all used to hold the grain while being thrashed. Stakes are sometimes used to steady the laborer; he usually wears moccasins while treading the grain. Cloth and mats are used as screens. Sticks used like flails and like churn-dashers are also employed. The grain is at times pounded on flat stones, and again it is shaken in large open baskets.

Winnowing

It is not difficult to draw sharp lines separating the various processes which have been described thus far in the harvesting of wild rice. The entire winter, the spring, and most of summer intervene between the sowing and the tying. Between the tying and the gathering from several days to several weeks elapse; and though the gathering and the curing may be done on the same day, and even at the same time by different women, the gathering is on the water, while the curing is on the land. The curing and the thrashing are plainly distinct processes; but it is only because of division of labor that a sharp line may be drawn between the thrashing and the winnowing. The Indian silently stalks into the labors of rice harvesting when the thrashing begins, and when it is completed he silently stalks out again, leaving the woman to lift up the pile of mixed kernels and chaff in order that the wind—nature's fanning mill—may separate them. If the wind does not blow when the grain is ready to winnow, the cleaner uses a fan.

Ellis wrote that in Green Bay county, Wisconsin, the hulls were blown off by the wind.[2] The Ojibwa women of Fond du Lac reservation, Minnesota, and Bad River reservation, Wisconsin, all winnow their wild rice by means of the wind.[3] Mr Phalon writes of Fond du Lac, "A blanket or birch bark is spread on the ground, and with the help of a good stiff breeze the grain is fanned out." The women at Lac Courte Oreille reservation, as I saw the process in the autumn of 1899, put a peck of the thrashed grain into a birch-bark tray

[1] Paddock, letter, January 20, 1899.
[2] Ellis, Recollections, p. 266.
[3] Phalon, letter, December 27, 1898; Patterson, letter, November 13, 1898.

WILD-RICE KERNELS BEFORE THRASHING

(plate LXXIX *b*), which is about 3 feet long, 2 feet wide, and 7 or 8 inches deep. They then grasp both ends of the tray, and by a very simple yet clever movement gradually empty the chaff. The tray is lifted several inches and carried slightly outward. This upward and outward movement is checked quite suddenly, and the tray, while being drawn toward the body of the laborer, is let down again. The light chaff is thus spilled over the outer edge when the tray is at its highest point and just as it is suddenly jerked toward the laborer. However, because of the rapidity with which this shaking is done, the movements appear neither sudden nor jerky, and the chaff falls almost constantly (see plate LXXVII *b*).

Among the Menomini, "on a windy day, by means of a birch-bark tray, the rice is cleaned. . . . Sometimes the rice and hulls are separated by spreading on a mat and fanning with a bark tray."[1] The Sandy lake Indians in 1820 cleaned their rice with "a fan made of birch bark, shaped something like those used by farmers. This is the most expeditious way of cleaning it."[2]

The only implements used in winnowing are birch-bark fans, blankets and birch-bark trays (which are spread upon the ground to catch the grain).[3]

Storing

While the American farmer locks his granary that its contents may be safe, the Indian hides his harvest for safety. In fact, the common term by which the Indian granary is now known throughout the Northwest is the French term *cache*, or hiding place. It is a part of an Indian's code of morals not to steal from his friends, but it is equally a virtue to steal from an enemy. Inasmuch as tribes ordinarily habitually steal from one another, the fall harvest of wild rice must be kept in a place of safety. Its hiding was formerly much more necessary than at present, for before the time of settled homes the families broke up the harvest camp immediately after completing their labors, and repaired to their fall festivities or hunting-grounds. As will be seen later, there was both a subjective and an objective reason why the Indians did not store away larger quantities of wild rice. One reason was that they would not gather large quantities of the grain, and the other reason was that the crop so often failed that at times they could not harvest abundantly. However, now and then the instinct of frugality was strong enough to assert itself. Atwater said that the Winnebago women contrived to save, by hiding, some of their food in time of abundance. They often buried rice and

[1] Hoffman, op. cit., p. 291.

[2] Edward Tanner, op. cit., December 8, 1820; see also Seymour, op. cit., pp. 183, 184; Kinzie, op. cit., p. 67; Jones, op. cit., pp. 259, 260; Gheen, letter, November 15, 1898.

[3] The appearance of the grain after winnowing is shown in plate LXXVIII.

maize in the ground to keep it from being stolen.[1] Throughout Wisconsin in 1843 the grain was deposited in the ground to be taken out when needed for food.[2]

After winnowing the grain "They [the Titoha band of Dakota, in the early part of the eighteenth century] carry away as much of it as they think they need and store the rest in the ground. They also put some to rot in the water, and when they return in the spring they find it delicious, although it has the worst kind of an odor."[3] The "Mantantons" (Mandan) kept rice in sacks, for, after a great feast made in honor of Le Sueur, the chief "fit present a M Le Sueur d'un esclave et d'un sac de folle avoine."[4]

At Sandy lake, in 1820, the rice when cured was "put into sacks of about a bushel each. A sack is valued at two skins. . . . A skin is valued at two dollars."[5] Carver wrote one hundred and thirty years ago that when the rice was fit for use the Dakota put it into skins of fawns and young buffalo, taken off nearly whole for this purpose, and sewed into a kind of sack, wherein they preserved it until the next annual harvest.[6] The Indians at Rat Portage, Ontario, "make bags of the inside bark of cedar in which they store the rice. They hold from $\frac{3}{4}$ to 1 bushel each."[7] Schoolcraft said that the winnowed rice "is then put into coarse 'mushkemoots,' a kind of bag, made of vegetable fiber or twine, with a woof of some similar material. Occasionally this filling material is composed of old cloth or blankets, pulled to pieces."[8] Birch-bark boxes were also used, which, after being filled, were frequently buried. The Ottawa Indians used them in the middle of the seventeenth century.[9] The Potawatomi also used these boxes.[10] They were sewed together at the corners with "bast," the inner bark of the basswood, and were called (from the Algonquian) mococks (plate LXXIX *a*).

The Indian granaries here noticed are very simple. They consist of a hole in the ground, into which are put boxes of birch bark and bags made of skin, bags made of the inside bark of the cedar and sometimes of other vegetal fiber, together with twine, etc.

Property-right in Wild Rice

As has been pointed out, most of the labors of wild rice production are performed by women. The women of more than one family fre-

[1] Atwater, Indians, p. 102.
[2] Indian Affairs Report, 1843, p. 434.
[3] Neill, Memoir of the Sioux, p. 236.
[4] La Harpe, Journal Historique, p. 66.
[5] Edward Tanner, Detroit Gazette, December 8, 1820.
[6] Carver, Travels, p. 524.
[7] Pither, letter, December 5, 1898; see also Gheen, letter, November 15, 1898, and Hoffman, The Menomini Indians, p. 291, for the same use of bags.
[8] Schoolcraft, Indian Tribes, vol. III, p. 62.
[9] Relations des Jésuites, 1663, p. 19.
[10] Pokagon, letter, November 16, 1898.

A. THRASHING WILD RICE BY MEANS OF A CHURN-DASHER-LIKE STICK

B. INDIAN WOMAN WINNOWING WILD RICE

quently unite their labors and divide the product according to some prearranged agreement or social custom. It must not be lost sight of, however, that if the food of any worthy family fails, the entire food supply of the social group is available to make up the deficiency. Chief Pokagon writes of wild rice among the Pottawatomi: "Our people always divide everything when want comes to the door."[1]

Among many North American Indian tribes, especially those cultivating fields of maize, certain harvest lands are set aside by the tribe, in which the family has a sort of fee tail. In general, it may be said that such a family controls for its own use, but not for disposal in any way, definite harvest lands for stated periods of time, provided it comply with certain requirements—usually those of cultivation.

Marquette reported something similar among the Dakota in 1671. They divided the wild-rice fields so that each could gather his crop separately without trespassing upon his neighbor's rights. Wild rice "qu'ils partagent entr'eux, pour y faire la récolte chacun à part, sans empiéter les uns sur les autres."

Among the Ojibwa Indians property right is quite generally recognized in wild rice. It seems to be due not to tribal allotment, but to preoccupation. Certain harvest fields are habitually visited by families which eventually take up their temporary or permanent abode at or near the fields. No one disputes their ownership, unless an enemy from another tribe, in which case might establishes right. The field or crop is sometimes distinguished by a personal mark, as is shown in the following cases. Carver said that after having tied the bunches they went to gather the crop, "when each family having its feperate allotment, and being able to diftinguifh their own property by the manner of faftening the fheaves, gathers in the portion that belongs to them."[2] Ellis referred to a similar custom at Green bay. He spoke of twisting the standing stalks into bunches, and says: "This gives the party twisting the bunches, a kind of pre-emption to so much of the rice, which before was all common."[3] Schoolcraft, in speaking in a general way of wild rice gathering in Michigan, Wisconsin, Iowa, Minnesota, and the upper Mississippi and Missouri valleys, said that the places where each family is to gather are generally selected and known beforehand.[4] Of course, if one has sowed a field, no one, unless a tribal enemy, would think of disputing the ownership of the sower, and such rice beds fall to the kin, as would personal property.

Amounts of Wild Rice Harvested

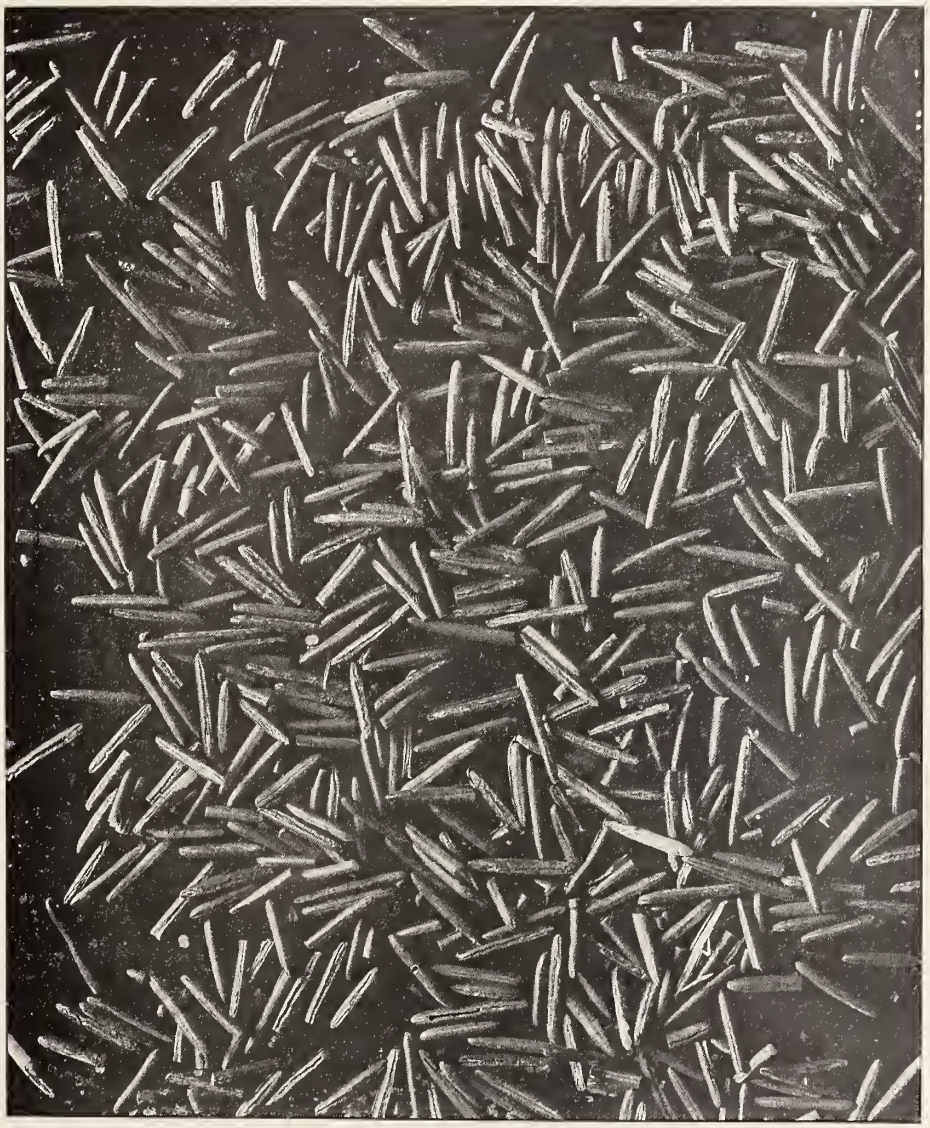
The primitive Indians do not take production very seriously. Indeed, they do not take it seriously enough for their own welfare, for often they are in want in an unnecessarily short time after the harvest. In

[1] Pokagon, letter, November 16, 1898.
[2] Carver, Travels, p. 523.
[3] Ellis, Recollections, p. 265.
[4] Schoolcraft, Indian Tribes, vol. III, p. 62 et seq.

the case of wild rice, their want was due not to overproduction and underdistribution, but to underproduction.

In 1820 Edward Tanner wrote: "One family ordinarily makes about five sacks of rice [5 bushels]; but those who are industrious sometimes make twenty-five—though this is very rare."[1] At Pelican Lake, Wisconsin, they gather about 12 or 15 bushels per family. They could gather more "if they did not spend so much time feasting and dancing every day and night during the time they are here for the purpose of gathering."[2] In the following table (A) an attempt is made to show the state of wild rice production between the years 1852 and 1898.

[1] Edward Tanner, Detroit Gazette, December 8, 1820.
[2] Motzfeldt, letter, December 3, 1898.



WILD-RICE KERNELS AFTER THRASHING AND WINNOWING

TABLE A—*Statistical view of wild-rice production*

[NOTE—Wild rice has no legal weight per bushel. Letters of inquiry to various reservations have resulted in the information that the weight of a bushel is 60, 38, 36, and 30 pounds. In some fields, as at Lac Courte Oreille river, Wisconsin, and Rat Portage, Ontario, the grain averages 50, 60, and at times 75 bushels per acre. There are some fundamental reasons why the following statistics do not tell the whole truth. Unless the Indian agent is personally interested in the natural production of the Indians he does not know accurately the amounts of wild rice which they produce. Agents' reports are frequently sent in before or during the harvest, in which case the amount of wild rice gathered is either only estimated or is not mentioned at all. Agents were frequently changed, and the new ones often did not speak of the rice crop in their first reports. Attention is also called to the utter lack of uniformity in making up the Indian Affairs Reports. The statistics which follow are sometimes given in the text and again in various tabulated forms. In some of the reports wild rice can not be distinguished from other rice or even other cereals which were produced.]

Indians	Year	Population	Rice		Value	Remarks	References
			Pounds	Bushels			
Ojibwa (Lake of the Woods), Canada	1852	.....	.....	2,000	.....	About 100 families harvested	Pither, letter, Dec. 5, 1898.
Mississippi, Pillager, and Winnebigoshish Chippewa	1864	3,966	.....	5,000	$25,000	See note *a*, p. 1078	Ind. Aff. Rep., 1864, p. 417.
Menomini (Green Bay agency)	1866	1,376	.....	50	100	.....	Ind. Aff. Rep., 1864, p. 363.
Chippewa (Ojibwa) of Lake Superior (Michigan agency).	1866	1,058	.....	650	1,950	.....	Ind. Aff. Rep., 1866, p. 363.
Mississippi band (Chippewa agency of Mississippi)	1866	2,166	.....	4,000	16,000	"A fair yield"	Ind. Aff. Rep., 1866, p. 264.
Pillager and Lake Winnebigoshish (Chippewa agency of Mississippi).	1866	1,899	.....	2,500	10,000	....do	Do.
Red Lake Indians (Chippewa agency of Mississippi)	1866	1,183	.....	500	2,000	....do	Do.
Chippewa (Ojibwa) of Lake Superior	1867	1,060	.....	1,000	2,000	.....	Ind. Aff. Rep., 1867, p. 386.
Kickapoo (Kickapoo agency, Kansas)	1867	282	.....	320	320	.....	Ind. Aff. Rep., 1867, p. 383.
Chippewa (Ojibwa) of Lake Superior	1868	1,060	.....	2,000	4,000	.....	Ind. Aff. Rep., 1868, p. 364.
Chippewa (Ojibwa) of Saginaw	1868	1,555	.....	1	2	.....	Do.
Chippewa (Ojibwa) of Mississippi river	1868	.....	.....	1,000	4,000	.....	Do.
Pillager and Lake Winnebigoshish Indians	1868	.....	.....	2,000	8,000	.....	Do.
Do	1869	.....	.....	1,000	4,000	.....	Ind. Aff. Rep., 1869, p. 479.
Chippewa (Ojibwa) of Mississippi river	1869	.....	.....	600	2,400	.....	Do.
Do	1870	.....	.....	2,150	3,583	.....	Ind. Aff. Rep., 1870, p. 342.
Seneca and others (New York)	1870	.....	.....	7,250	5,074	.....	Do.
Menomini (Green Bay)	1870	.....	.....	30	150	.....	Do.
Seminole agency (Indian Territory)	1870	2,136	.....	50	500	See note *d*, p. 1078	Ind. Aff. Rep., 1870, p. 341.
Yakima reservation (Washington Territory)	1870	2,700	.....	200	1,400	See note *b*, p. 1078	Ind. Aff. Rep., 1870, p. 336.

TABLE A—*Statistical view of wild-rice production*—Continued

Indians	Year	Population	Rice		Value	Remarks	References
			Pounds	Bushels			
Chippewa of Lake Superior (Bois Fort bands)	1871	.....	20,000	.....	.....	.....	Ind. Aff. Rep., 1871, p. 628.
Chippewa of Lake Superior, viz, Bad River, Red Cliff, Lac du Flambeau, Lac Courte Oreille, Fond du Lac, and Grand Portage bands.	1871	5,125	59,200	.....	.....	.....	Do.
Chippewa of Lake Superior (Michigan)	1871	1,125	.....	260	$1,105	.....	Ind. Aff. Rep., 1871, p. 634.
Menomini (Green Bay, Wisconsin)	1871	1,348	.....	30	150	.....	Do.
Chippewa of Lake Superior (Michigan)	1872	1,195	.....	1,220	.....	.....	Ind. Aff. Rep., 1872, p. 401.
Chippewa of Mississippi and other bands, as Pillager, Red Lake, etc.	1872	4,774	.....	950	.....	.....	Do.
Menomini (Green bay, Wisconsin)	1872	1,362	.....	200	.....	.....	Do.
Creeks (Indian Territory)	1872	13,000	.....	500	.....	See note *d*, p. 1078	Ind. Aff. Rep., 1872, p. 403.
Seminole (Indian Territory)	1872	2,398	.....	500	.....	....do	Do.
Peah (near Denver, Colorado)	1872	.....	.....	60	.....	.....	Ind. Aff. Rep., 1872, p. 409.
Coos (Alsea subageney, Washington)	1872	110	.....	200	.....	See note *b*, p. 1078	Ind. Aff. Rep., 1872, p. 413.
Umpqua (Alsea subageney, Washington)	1872	40	.....	50	.....	....do	Do.
Alsea (Alsea subageney, Washington)	1872	107	.....	100	.....	....do	Do.
Menomini, Stockbridges, Munsee, Oneida	1873	.....	.....	300	.....	.....	Ind. Aff. Rep., 1873, p. 346, table.
Chippewa of Lake Superior (La Pointe ageney)	1873	.....	.....	1,800	.....	.....	Do.
Chippewa of Lake Superior and other bands	1873	4,637	.....	3,200	.....	.....	Do.
Seminole (Indian Territory)	1873	.....	.....	25	.....	See notes *c* and *d*, p. 1078	Do.
Menomini, Stockbridges, Munsee, Oneida	1874	.....	.....	300	.....	.....	Ind. Aff. Rep., 1874, p. 122.
Chippewa of Lake Superior (La Pointe agency)	1874	.....	30,000	.....	.....	.....	Do.
Seminole (Indian Territory)	1874	2,438	.....	25	.....	.....	Ind. Aff. Rep., 1874, p. 124.
Santee Sioux (Flandreau special agency on Missouri river, northern Nebraska).	1874	791	.....	20	.....	This report was made September 5, which was too early to know total amount.	Ind. Aff. Rep., 1874, p. 125.
Chippewa, Bad River band (Wisconsin)	1875	732	4,000	.....	.....	This crop exceeded 4,000 pounds	Ind. Aff. Rep., 1875, p. 371.
(Ojibwa) White Earth (Minnesota), Mississippi Pembina, and Ottertail Pillager bands.	1878	2,872	.....	150	.....	This report was dated August 30; crop was about 150 bushels.	Ind. Aff. Rep., 1878, p. 82.

Chippewa, Bad river (Wisconsin)	1878	.....	10,000	.....	.....	Total harvest for the year was 146,000 pounds.	Ind. Aff. Rep., 1878, pp. 146, 311.
Chippewa (Wisconsin), Fond du Lac, Bois Fort, Grand Portage, Red Cliff, Bad River, Lae du Flambeau, and Lae Courte Oreille bands	1879	5,150	129,000	.....	.....	.....	Ind. Aff. Rep., 1879, p. 163.
	1881	.....	.....	6,500	.....	Total amount gathered	Ind. Aff. Rep., 1881, p. 308.
Menomini	1882	1,500	.....	50	.....	.....	Ind. Aff. Rep., 1882, p. 364.
	1884	.....	.....	1,400	.....	Total amount gathered	Ind. Aff. Rep., 1884, p. 320.
	1885	.....	.....	.....	40	Total value of wild rice sold	Ind. Aff. Rep., 1885, p. 394.
Bad River reservation, Wisconsin	1898	1,200	.....	200	per lb., 10 cts.	50 per cent of crop gathered	Patterson, letter, Dec. 5, 1898.
Fond du Lac reservation, Minnesota	1898	400	.....	650	per lb., 6–10 cts.	41.3 per cent of crop gathered	Phalon, letter, Dec. 27, 1898.
Lae Courte Oreille reservation, Wisconsin	1898	1,150	.....	500	per lb., 8–10 cts.	Could have gathered much more.	Rodman, letter, Nov. 11, 1898.
Nett Lake reservation, Minnesota (Vermilion Lake, Bois Fort).	1898	200	.....	100	per lb., 7 cts.	.....do	Gheen, letter, Nov. 15, 1898.

The Indians at Bad river, Fond du Lac, and Lac Courte Oreille reservations harvested about the same amount of wild rice in 1899 as in 1898. A storm destroyed nearly the entire crop at Vermilion lake in 1899. The Menomini Indians annually harvest from 50 to 100 bushels, but the whites who own the land adjoining Shawano lake—their harvest ground—frequently forbid them to camp there; thus their crop is uncertain.

Note a—Estimates of other Indian productions for the year 1864

Commodities	Amounts	Value
Furs		$40,000
Maple sugar	150,000 pounds	15,000
Potatoes	3,000 bushels	3,000
Maize	1,000 bushels	1,500
Total		59,500

With wild rice valued at $25,000, as is given in Table A, it equaled 30.308 per cent of the total Indian production (Indian Affairs Report, 1864, p. 417).

Note b—Zizania aquatica has not been found west of the Rocky mountains; so this reference should be, probably, to *Avena fatua*, the indigenous wild oat of California and vicinity.

Note c—Several letters of inquiry sent to Indian Territory have met with no response. It is therefore impossible to state what grain this is, though it is believed to be *Zizania aquatica*.

Note d—The Seminole of Indian territory planted rice in 1873 (see Indian Affairs Report, 1873, p. 212). The same fact is suggested in the Indian Affairs Report for 1872.

This table shows, therefore, when all doubtful references to wild-rice production are disregarded, that, besides the Indians in the wild rice district, the following have produced the grain since 1852: The Kickapoo of Kansas; the Chippewa (Ojibwa) of Saginaw, Michigan; the Seneca and others of New York; the Santee Sioux of Nebraska, and the Peah Ute of Colorado.

It is regretted that no data could be obtained from the four reservations where wild rice is now produced in greatest quantities, viz, those of Red lake, Pine point, Wild Rice river, and White Earth agency, all in Minnesota.

Following is a list of Indian agencies at reservations where no wild rice grows, although the natives are within reach of what was once wild-rice territory, and many of them consumed the grain at an earlier period:

Lower Brulé agency, South Dakota.
Cheyenne River agency, South Dakota.
Crow Creek agency, South Dakota.
Pine Ridge agency, South Dakota.
Yankton agency, South Dakota.
Rosebud agency, South Dakota.
Sisseton agency, South Dakota.
Standing Rock agency, North Dakota.
Devils Lake agency, North Dakota.
Fort Berthold agency, North Dakota.
Mackinaw agency, Michigan.

TABLE B—*Value of wild rice per bushel*

[NOTE OF EXPLANATION—These values are obtained from Table A]

	Per bushel		Per bushel
1864	$5.00	1869	$4.00
1866	$2.00, 3.00, and 4.00	1870	$0.60, 1.20, 5.00, 7.00 and 10.00
1867	$1.00 and 2.00	1871	$4.25 and 5.00
1868	$2.00 and 4.00		

The following table will aid in showing how long and how largely the Indians in the wild-rice district have been able to maintain themselves through natural production. Some idea may also be obtained

as to what part wild rice played in the Indian food supply by comparing a certain tribe of Indians in Table A with the same tribe in Table C at about the same year.

TABLE C—*Standard of life of the various Indians who have produced wild rice, being an estimate of the standard of subsistence obtained by Indian civilized labor, Indian natural labor, and Government assistance* [1]

	Indians	Year	Indian civilized labor	Indian natural labor	Government assistance
			Per cent	*Per cent*	*Per cent*
1	Creeks, Indian Territory	1875	100	.....	.....
2	Kickapoo, Kansas	1875	50	50	.....
3	.....do	1881	90	10	.....
4	Peah Ute, Colorado	1875	.....	65	35
5	Chippewa of Lake Superior	1875	40	60	.....
6	All Michigan Indians, including 5	1877	60	40	.....
7	Chippewa of Lake Superior	1881	75	25	.....
8	Chippewa of Mississippi, Pillager, and Lake Winnibigoshish	1875	5	95	.....
9	Chippewa of Red Lake	1875	50	50	.....
10	.....do	1877	50	50	.....
11	All Leech Lake Indians, including 8 and 9	1877	40	60	.....
12	Chippewa of Lake Superior, including 13 to 18	1875	40	60	.....
	Chippewa of Lake Superior in following bands:				
13	Red Cliff	1881	65	35	.....
14	Bad River	1881	60	40	.....
15	Lac Court Oreille	1881	10	90	.....
16	Fond du Lac (Lake Superior)	1881	60	40	.....
17	Grand Portage	1881	50	50	.....
18	Bois Fort	1881	50	50	.....
19	Santee Sioux, Nebraska	1875	35	15	50
20	.....do	1877	40	20	40
21	.....do	1881	70	5	25
22	Menomini, Stockbridge, and Oneida of Wisconsin	1875	100	.....	.....
23	Menomini, Wisconsin	1881	90	10	.....
24	Coos, Umpqua, and Alsea of Oregon	1875	25	75	.....
25	Entire Siletz agency, including the three of 24	1881	65	12	23
26	Chippewa of White Earth agency, Minnesota, in the following bands: Mississippi, Pembina, Ottertail, and Pillager. (See 8)	1878	75	25	.....
27	All Chippewa of Leach Lake, Red Lake, and White Earth agencies, including 8, 9, 10, 11, 26	1881	50	50	.....

[1] These figures are found in the Indian Affairs Reports for 1875, p. 122 et seq.; for 1877, p. 311 et seq., for 1878, p. 305, and for 1881, p. 290 et seq.

Chapter V

CONSUMPTION

Nutrition

Of the various authors quoted in this memoir not one has spoken disparagingly of wild rice as a food. A few have observed that it is nearly as good as the white rice of commerce; a great many have said that it is fully as good, while still many others have said that it is better. A few of these observations will be presented later, when the various ways of preparing the grain for food are considered.

In 1862 Mr Ed. Peters made a chemical test of the composition of the grain (*Zizania aquatica*), and Prof. F. W. Woll, chemist of the Agricultural Experiment Station at Madison, Wisconsin, made a similar test for this memoir in 1899. These are the only tests which have been reported, and it is upon them that the positive statements of the nutritive qualities of wild rice are made. The following table (D), column *h*, shows that wild rice is more nutritious than the other native foods to which the wild rice producing Indians had access, viz, maize, green corn, corn meal, white hominy (substitute for Indian hominy), strawberries, whortleberries, cranberries, sturgeon, brook trout, and dried beef (substitute for dried or jerked buffalo meat). It shows also that it is more nutritious than any of our common cereals, as oats, barley, wheat, rye, rice, and maize.

It is noticed that the wild rice is very rich in nitrogen-free extract; that is, carbohydrates, such as starch, sugar, etc., which are heat producers. In the economy of the animal body they are transformed into fat. They thus produce both heat and fat. Indeed, wild rice is seen to be richer in carbohydrates than any other of the foods here mentioned, with the exception of white hominy—the hominy of commerce.

The last two specimens of wild rice mentioned in Table D were produced by Indians and came from Lac Courte Oreille reservation, Wisconsin, while the first specimen probably was not, as the Indians do not consume the grain in the "original substance," and the "dried substance," by Peters, is drier than the Indians prepared it—the water having been entirely removed. It is also noticed that the Indian-produced wild rice is very rich in crude protein, or the albuminoids,

A. BIRCH-BARK MOCOCKS IN WHICH THE GRAIN IS CARRIED

B. BIRCH-BARK WINNOWING TRAY

TABLE D—*Composition of cereals and Indian foods*

Cereals and Indian foods	(*a*) Water	(*b*) Ash (mineral matter)	(*c*) Crude protein (albuminoids, flesh producers)	(*d*) Crude fiber (cellulose)	(*e*) Nitrogen-free extract (carbohydrates, stareh, sugar, ete)	(*f*) Ether extract (fat or oil)	(*g*) Nitrogen	(*h*) Total nutrition (the produet of eolumns *c*, *e*, and *f*)
Wild riee:								
In der ursprünglichen substanz[1]—	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Haferreis gesehält[2]	12.00	1.70	6.74	1.93	76.93	0.70	.....	.....
Samenschale[2]	13.20	9.20	2.82	38.90	35.05	.83	.....	.....
In der trockenen substanz[1]—								
Haferreis gesehält[2]	.....	1.95	7.74	2.22	87.29	.80	1.24	.....
Samensehale[2]	.....	10.60	3.25	44.81	40.38	.96	.52	.....
The original substance (the entire grain)	12.14	2.60	6.269	6.36	71.90	.715	.....	.....
The dried substance (the entire grain)	.....	1.98	7.20	7.33	81.66	.819	1.15	[3] 89.679
Smoke dried (the entire grain)	9.99	1.58	13.65	1.22	72.68	88	.....	[3] 87.21
Parehed (the entire grain)	9.54	1.44	13.00	1.12	74.04	.86	.....	[3] 87.90
Corn (maize)[4]	10.9	1.5	10.5	2.1	69.6	5.4	.....	85.5
Green sweet eorn[5]	.....	.....	2.8	.....	14.2	1.1	.....	18.1
Corn meal[5]	.....	.....	9.2	.....	70.6	3.8	.....	83.6
White hominy[5]	.....	.....	8.3	.....	77.4	.4	.....	86.1
Strawberries[5]	.....	.....	1.0	.....	6.9	.7	.....	8.6
Whortleberries[5]	.....	.....	.7	.....	13.5	3.0	.....	17.2
Cranberries[5]	.....	.....	.4	.....	10.9	.9	.....	12.2
Sturgeon, seetion of[6]	.....	.....	15.4	.....	.....	1.6	.....	17.0
Brook trout, whole[6]	.....	.....	9.8	.....	.....	1.1	.....	10.9

[1] Peters in Dietrieh und König Futtermittel, Zweite Auflage, I (Berlin, 1891), p. 585.

[2] Note in Dietrich . . . , p. 585: "Kern und Sehale waren in dem Gewiehtsverhältniss von 88:12 vorhanden." In order to get the composition of tbe entire grain, or the grain as the Indian consumed it, the first, "Haferreis geschält," is multiplied by 88, and the second, "Samenschale," by 12, and the product is divided by 100.

[3] In comparing the nutrition of wild rice and eleaned rice, it must be notieed that the wild rice grain is yet inclosed in its pelliele, while the elcaned riee has had the pellicle removed. If the wild rice were "eleaned" by having its pellicle removed it would be still more nutritious.

[4] Test of Professor F. W. Woll, Experiment Station, Madison, Wisconsin.

[5] Report of Connectieut Board of Agrieultural and Experiment Station 1891, table 33

[6] Ibid., table 32.

TABLE D—*Composition of cereals and Indian foods*—Continued

Cereals and Indian foods	(*a*) Water	(*b*) Ash (mineral matter)	(*c*) Crude protein (albuminoids, flesh producers)	(*d*) Crude fiber (celulose)	(*e*) Nitrogen-free extract (carbohydrates, starch, sugar, etc)	(*f*) Ether extract (fat or oil)	(*g*) Nitrogen	(*h*) Total nutrition (the product of columns *c*, *e*, and *f*)
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
White-fish, whole[1]	.....	.....	10.3	.....	.....	3.0	.....	13.3
Lake trout, whole[1]	.....	.....	7.7	.....	.....	5.4	.....	13.1
Dried beef[2]	.....	.....	28.8	.....	1.4	4.4	.....	34.6
Oats[3]	11.0	3.0	11.8	9.5	9.5	5.0	.....	76.5
Barley[3]	10.9	2.4	12.4	2.7	69.8	1.8	.....	84.0
Wheat[3]	10.5	1.8	11.9	1.8	71.9	2.1	.....	85.9
Rye[3]	11.6	1.9	10.6	1.7	72.5	1.7	.....	84.8
Rice, cleaned[4]	.....	.....	6.73	.....	78.48	.88	.....	86.09

[1] Report of Connecticut Board of Agricultural and Experiment Station 1891, table 32.
[2] Ibid., table 33.
[3] Test of Professor F. W. Woll, Experiment Station, Madison, Wisconsin.
[4] Austin, Rice . . . , p. 11.

which produce flesh. It is richer in flesh-producing substance than any of the other foods given above, with the exception of sturgeon and dried beef. It is therefore true that wild rice is the most nutritive single food which the Indians of North America consumed. The Indian diet of this grain, combined with maple sugar and with bison, deer, and other meats, was probably richer than that of the average American family to-day. Of course this diet lasted a limited part of the year only.

Ways of Preparing Wild Rice for Food

Food suggests plenty and satisfaction. The witty and humorous after-dinner speeches of well-dined and well-wined men are a natural overflow. Radisson presents a brief glimpse of a happy primeval banquet before the western Indian had learned to distrust the white man. He speaks of a friendship feast of the Dakota as follows: "Our fongs being finifhed, we began our teeth to worke. We had there a kinde of rice, much like oats . . . and that is their food for the moft part of the winter, and [they] doe dreffe it thus: ffor each man a handfull of that they putt in the pott, that fwells fo much that it can fuffice a man."[1]

The Indian is very fond of soups, and wild rice is commonly used by him to thicken food of this kind quite as commercial rice is used by the whites. Early in the eighteenth century Neill wrote of the Dakota Indians: "Wild rice is a good and very healthful food, very light and nourishing; it is excellent with game broth."[2]

On the same page this author also said that at the time these Indians buried their store of grain in the fall of the year, "they also put some to rot in the water, and when they return in the spring they find it delicious." Ellis wrote of the use of wild rice in the early days at Green bay, Wisconsin, as follows: "It is used to thicken their broth of venison, bear, fish, and fowl; it is very nutritious and palatable."[3] The wild rice of the Mississagua Indians of Rice lake, Ontario, is parched and "without further preparation it is often used by hunters and fishermen when out on expeditions. But more frequently it is made into soup and stews."[4] From Lake of the Woods comes a receipt for a wild-rice dish, which suggests a delightful flavor, as follows: "A soup made of wild rice and blue berries is a very palatable dish, and eagerly sought after by those who have been living on salt food for several weeks."[5] The Potawatomi Indians, after pounding their grain, hull and all, and throwing it into a vessel of water, skimmed off the refuse hulls and made the remainder into a very palatable soup.[6]

[1] Radisson, Voyages . . . , p. 215.
[2] Neill, Memoir of the Sioux, p. 236.
[3] Ellis, Recollections, p. 266.
[4] Chamberlain, op. cit., p. 155.
[5] Hind, Narrative, pp. 96–97.
[6] Paddock, letter, January 20, 1899.

Some of the dishes of which wild rice forms a part, however, are not so suggestive of satisfaction to the palate of the white man; and yet, most white people have eaten food less palatable than a stew or soup of wild rice and dog meat, notwithstanding its suggestiveness. It is a favorite dish with the Indian. After some of the customary conflicts between the Ojibwa and Dakota in the wild-rice district, the following was recorded in 1840: "The savage party [Ojibwa] also cooked some of the flesh of the Sioux with their rice."[1] The Sandy lake Indians, according to Doty, have boiled the excrement of rabbit with their rice to season it, and they esteem it a luxury. To make this dish still more palatable—in fact, one of their highest epicurean dishes—they occasionally took a partridge, and, after having picked off its feathers, but made no further preparation, they pounded it to the consistency of jelly. It was then thrown into the dish and the whole was boiled.[2]

The following dish is not only palatable, but also very nutritious: "The Indian women used to make a favorite dish of wild rice, corn, and fish boiled together, and called *Tassimanonny*. I remember it to this day as an object of early love."[3] Marquette wrote that after winnowing the grain "they pound it to reduce it to meal, or even unpounded, boil it in water seasoned with grease, and in this way, wild oats [wild rice] are almost as palatable as rice would be when not better seasoned."[4] Traill wrote of the Indians about Quinto bay, Ontario, as follows: "That night . . . cooked some of the parched rice, Indian fashion, with venison, and they enjoyed the novelty very much. It made an excellent substitute for bread, of which they had been so long deprived."[5]

The cooked grain is eaten plain, and is also a great favorite with the Indian when eaten with sweets, especially with maple sugar. Schoolcraft tells us that it was boiled in water to the consistency of hominy and was eaten, unseasoned, with spoons. It is also sometimes roasted and eaten dry. He stated that it contains more gelatinous matter than the southern rice, and is very nutritious.[6] Hennepin said that the Indians used to boil their rice except during the time of hunting. "Les Sauvages en font leur provifion pour fubfifter une partie de l'année en la faifant cuire en maniere de bouillie hors du temps de leur Chaffe."[7] Flint wrote "The grain, that we have eaten, was as white, as the common rice. Puddings made of it tasted to us, like those made of sago."[8] Carver stated that the Dakota "boil it and eat it alone"; that they also

[1] Neill, The Beginnings of Organized Society, p. 64.
[2] Doty, Wisconsin Historical Collections, vol. VII, p. 199.
[3] Biddle, Wisconsin Historical Collections, vol. I, p. 63.
[4] Shea, Discovery, p. 9.
[5] Traill, Canadian Crusoes, p. 185.
[6] Schoolcraft, Indian Tribes, vol. III, p. 63.
[7] Hennepin, Nouvelle Decouverte, p. 313* (fol. 0*4).
[8] Flint, Geography and History, vol. I, p. 85.

eat their meat and usually their maple sugar alone.[1] Le Sueur spoke of two features of the feasts of the Dakota. He was invited to their wigwams, and, after their customary weeping ceremony "the chief offered him wild rice to eat, and according to their cuftom put the firft three fpoonfuls in to his [own] mouth."[2] The "Mandantons" (Dakota band) invited him to a great banquet where there were 100 men, each with his plate.[3]

Hennepin and his companions were captured and adopted into Dakota families; after pipe smoking, in the ceremony of adoption, the principal chief gave them wild rice, presenting it on birch-bark dishes. The women had seasoned the food with sun-dried whortleberries. He said that they were as good as currants—"ces Barbares nous donnérent à manger de la folle avoine, dont j'ai fait mention. Il nous la prefentérent dans de grands plats d'écorce de bouleau. Les femmes Sauvages l'avoient affaifonnée avec des bluez. Ce font des graines noires, qu'elles font fecher au Soleil pendant l'été, & qui font auffi bonnes que des raifins de Corinthe."[4] He was also given wild rice with the smoked roe of fishes—"Aquipaguetin, qui m'avoit adopté, ne me donnoit qu'un peu de folle avoine cinq ou fix fois la femaine avec des oeufs de poiffons boucannez pour me nourir. Les femmes faifoient cuire tout cela dans des pots de terre."[5] Dablon said, "et la graisse mélée avec la folle avoine, fait le mets le plus delicat de ce païs."[6] This was among the Maskotin.

Hoffman wrote in 1892 that the Menomini Indians boiled their rice and ate it plain with maple sugar. It was also sometimes boiled with meat or vegetables, or a broth was made of it and was served as soup.[7] Mr George Lawe wrote of these Indians in the early forties that their rice when boiled and eaten with maple sugar is very palatable and nutritious, and serves them instead of breadstuffs.[8] Reverend Chrysostom Verwyst, a lifelong missionary among the Indians south of Lake Superior, says: "Wild rice is very palatable, and the writer and his dusky spiritual children prefer it to the rice of commerce, although it does not look quite so nice."[9]

The Indians at Lac Courte Oreille reservation, and doubtless all other wild rice producing Indians, will eat the grain cooked in any form in which they are able to procure it. During the three weeks following the harvest of 1899 I was daily, almost constantly, in their houses, wigwams, war-dance circle, and Midē' society lodge, and did not witness a meal in which wild rice was not consumed. In fact, during the eight days covered by their dances, when I saw them eat three or four times daily, wild rice, cooked in a manner similar to

[1] Carver, Travels, p. 262.
[2] Shea, Early Voyages, p. 107.
[3] La Harpe, Journal, p. 66.
[4] Hennepin, Nouvelle Decouverte, p. 347.
[5] Ibid., p. 355.
[6] Relations des Jésuites, 1671, p. 44.
[7] Hoffman, Menomini Indians, p. 291.
[8] Indian Affairs Report, 1843, p. 434.
[9] Verwyst, Historical Sites of Chequamegon Bay, in Wisconsin Historical Collections, vol. XIII, p. 429.

oatmeal, and eaten alone, was their entire diet nearly every meal. At times also the rice was used to thicken venison and dog stew.

The white people near all the reservations in Wisconsin and Minnesota, where wild rice is produced are, as a rule, very fond of the food. As a result of many personal interrogations I believe that fully 90 per cent of the white people who have eaten wild rice are fond of it.

Both the Indians and the whites wash the grain three or four times before cooking. Sometimes a small quantity of soda is added to the water used in the first washing. The green wild rice will cook by simply having boiling water poured over it. The parched wild rice needs to be cooked about half an hour, while the fire-cured or black wild rice requires nearly an hour for cooking. When it is cooked like oatmeal twice as much boiling water as rice is used. The grain cooked in this manner may be warmed over, and its flavor and wholesomeness in no way impaired. In cooking it swells probably a little less than commercial rice, but a coffee-cup full, measured before cooking, will furnish a full meal for two Indians, or sufficient breakfast food for eight or ten persons. The grain is especially wholesome as a breakfast food served with sugar and cream; and when treated in any way with wild game, whether as a dressing, in soups or stews, or as a side dish dressed with the juices of the game, it is at its best, and is delicious and wholesome.

John Long wrote of a baby food in which wild rice was the most important ingredient. He said that the northern Indian women fed their little children on rice and oats, which, when cleaned from the hull, were pounded between two stones, and boiled in water with maple sugar. "This food is reckoned very nourishing, and with broth made from the flesh of animals and fish, which they are frequently able to procure, can not fail of supporting and strengthening the infant."[1] Hunter, who was a captive among the Osage Indians from childhood until the age of 19 years, in the first quarter of the present century, says of their treatment of cholera morbus: "They resort to the steam-bath and cathartics, after which they give copiously of a gruel made of wild rice, and wild licorice tea. They also apply fomentations to the stomach."[2]

Periods of Consumption

The subject of mealtime is still open to study. Why it is that people of one nation have three meals regularly every twenty-four hours, while others have five, is a matter for sociologic speculation. As habits of industry become more fixed and the food supply comes more under control, mealtime correspondingly tends to become more regular.

[1] Long, Voyages and Travels, p. 61.
[2] Hunter, Captivity Among the Indians, p. 433.

During the period when the food supply depended upon almost constant effort, meals were partaken of whenever the individual could obtain food.

In this section will be brought together some facts as to the time of day and year when wild rice is consumed. It is natural to expect that most of it will be eaten immediately after harvest, for the Indian does not often save in large quantities or for a long period, especially in the case of food that he relishes greatly. However, since the fall hunts begin soon after the harvest, wild rice is generally quite extensively saved by those Indians whose hunting grounds are fruitful.

Hunter says of the Osage Indians: "The usual times of taking their meals, are at sunrise, noon, and sunset." When the days are long and the food abundant, the grown people eat three meals daily, when the days are shorter but two meals are eaten, and when food is scarce they eat but one, and sometimes not even that.[1] According to Schoolcraft the Dakota Indians have no regular mealtime.[2]

Pokagon, the late Potawatomi chief from the St Joseph river valley, Michigan, wrote in regard to this subject: "Indians eat when hungry." His people ate their rice in the fall and all the year if it lasted.[3] The Leech Lake Indians, in 1863, garnered their wild rice for use in midwinter, when other food could not be obtained.[4] In 1843 the Menomini stored their wild rice in the ground "to be taken therefrom, and used, during the winter, as their necessities require. In times of scarcity of game, they subsist entirely upon it."[5] Radisson says that wild rice is the food of the Dakota "for the moſt part of the winter."[6]

Pike wrote of the "Minowa Kantongs" (the Mdewaka^{n}to^{n}wa^{n} band of the Dakota) that they cultivated a small quantity of maize and beans, but, although he was with them in September and October, he never saw one kettle of either, as they always used wild rice for bread. This production, he said, nature has furnished to all of the most uncultivated tribes of the Northwest, so that they may gather enough, which, together with the products of the chase and the net, will insure them subsistence throughout the entire year.[7]

Of the wild-rice district in 1820, we read: "A few provident Indians save a little [wild rice] for the spring of the year to eat with their sugar, though generally by the time they have done curing it, the whole is disposed of for trinkets and ornaments." The author continues: "Thus by gratifying their vanity, they are left nearly destitute of provisions for the winter—choosing rather to endure hunger and the greatest misery, than to mortify their pride."[8]

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[1] Hunter, Captivity, pp. 259–260.
[2] Schoolcraft, Indian Tribes, vol. IV, p. 67.
[3] Pokagon, letter, November 16, 1898.
[4] Indian Affairs Report, 1863.
[5] Ibid., 1843, p. 434.
[6] Radisson, Voyages, p. 215.
[7] Coues, Pike, vol. I, p. 344.
[8] Edward Tanner, Detroit Gazette, December 8, 1820; reprinted in Wisconsin Historical Collections, vol. VII, p. 199 et seq.

Warren says that in 1862 the Ojibwa of Leech lake, Minnesota, gathered sufficient wild rice for winter consumption.[1] Carver wrote that the Indians saved the grain for an entire year. He speaks of the sacks of fawn skins and young bison skins "wherein they preserve it till the return of their harvest."[2] In 1775 Alexander Henry wrote of obtaining wild rice from the Indians in Canada, immediately north of the wild-rice district in the United States, about ten months after their last harvest.[3]

Letters of inquiry sent to reservations on which Indians now use wild rice elicited no new facts as to the time of its consumption. The grain is very highly esteemed as a food, and is usually eaten at any and all meals until the supply is exhausted.

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[1] Warren, History of the Ojibways, p. 186.
[2] Carver, Travels, p. 524.
[3] Henry, Travels, pp. 241, 243, 244, 251.

Chapter VI

GENERAL SOCIAL AND ECONOMIC INTERPRETATIONS

The Wild-rice Moon

With primitive man, as with wild animals, there are two chief foci from which radiate the primary activities of the individual and his society. Both are connected with the processes of growth. The one is food getting, the other reproduction. Along these radiations the majority of life's battles are fought—along those from the first focus the individual struggles to survive; along those from the second he struggles that others may survive, that he may perpetuate his species. In the evolution of animal life these struggles may be classified roughly as, first, purely chemical; next, predominantly instinctive, and last, conscious. Attention is called to the struggle along the radiations from the food focus, and in this last, or conscious stage.

The most fundamental and persistent want of man is that for food. It is not to be wondered at, therefore, that periods of food plenty should be recognized and marked conspicuously by suitable names. It is a worldwide custom of primitive people to name many months or moons of the year after that natural product which, by its abundance or usefulness, or by other means, emphasizes itself for the time being above all other products. Wild rice at the time of its harvest is such a product, and it has given name to its harvest moon among many wild rice producing Indians. In the Ojibwa language the September moon is called *Manominike-gisiss* or *Manomini-gisiss*, "the moon of the gathering of wild rice."[1] Schoolcraft gives the synonym *Mon-o-min-e-geez-is*, or "moon of wild rice,"[2] as referring to the August moon. There need be no discrepancy here, for the harvest occupied parts of August, September, and October. Wilson gives *muhnoomene-keezis*, "the wild rice moon," as another synonym for September.[3] In the Ottawa language, *Menomonie-ka-we kee-zis*, and in the Menomini language, *Pohia-kun ka-zho*, both mean "wild-rice-gathering moon."[4] The Potawatomi Indians have a moon called *manominike-gises*, or "the moon of gathering wild rice,"[5] corresponding with late September and early

[1] Baraga, Dictionary.

[2] Schooleraft, Indian Tribes, vol. v, p. 569.

[3] Wilson, Manual of the Ojebway Language. Both Wilson and Baraga call August the bilberry or whortleberry moon.

[4] Tanner, Narrative, p. 321.

[5] Pokagon, letter, November 16, 1898.

October. All of these synonyms, except that in the Menomini language, are clearly from the same root terms, viz, *mano'mĭn*, wild rice, and *keezis* or *gisiss*, moon or month.

In the language of the Dakota Indians, two moons, roughly corresponding to our September and October, have received their names from wild rice. September is called *Psin-na-ke-tu-wee*, or "the ripe-rice moon," and October is designated *Wa-zu-pee-wee*, or *Wee-wa-zu-pee*, "the moon when wild rice is gathered and laid up for winter."[1] Neill[2] gives the following synonyms for the same months: September is *Psinhnaketu-wi*, or "the moon when rice is laid up to dry," and October is *Wi-wajupi*, or *Wazupi-wi*, "the drying-rice moon." As early as 1828 Beltrami[3] cited the names for these two months. One of the words given by him is clearly a synonym of the above and the other is apparently so. As this author is an Italian it is easy to see that the difference may be due largely to spelling. However, he confused the words and called September *Wasipì-ouì*, "the moon of oats," and October *Sciwostapì-ouì*, "the second moon of oats." Long gives *Wajopi we* or "commencement of wild rice" as the name for September; and *Siushtaupl we* or "end of wild rice" as the name for October.[4] *Wewakikshoo* is also given as meaning "the moon when the wild rice is ripe."[5]

Thus, with the three great branches of the Algonquian stock in the district of the upper lakes—the Ojibwa, Ottawa, and Potawatomi—the autumnal harvest of wild rice was so important an event that at least one month was named from it. This is true also of the smaller tribe of the same stock, the Menomini, while the Dakota, of the Siouan stock, were so influenced in their household economy by this grain that two of their autumn months bear its name.

Wild Rice in Indian Ceremony and Mythology

The mythology of primitive people is usually an attempted explanation of phenomena, and for the purposes of comparison much credit may be attached to it. The following facts have been collected which show at what relative periods some of the Indians came into possession of wild rice. The first totem of the Menomini Indians was the Bear; consequently Bear is the name of the chief phratry. This bear came from the earth at Minikanisepe (Menomini river) between the upper peninsula of Michigan and Wisconsin, where the Bear phratry long resided. The second totem was the Eagle, which was at the head of the Big Thunder phratry, dwelling at Lake Winnebago. The Good Mystery made this phratry the laborers; they also brought rain.

[1] Gordon, Winona, p. 134, note.
[2] Neill, History of Minnesota, p. 86.
[3] Beltrami, Sources of the Mississippi, ii, p. 274.
[4] Long, Narrative, vol. I, p. 422.
[5] Atwater, Indians, p. 170. This author says that the "Dacotas reckon time by lunations," but he mentions only seven months.

The Good Mystery gave them maize, and they were also the makers of fire. They visited the Bear phratry, offering maize and fire in exchange for wild rice, which was the property of the Bear and the Sturgeon, and which grew abundantly along Menomini river. The bargain was concluded, and since that time the Bear and the Big Thunder phratries have lived together.[1] The Potawatomi of St Joseph river, Michigan, have a similar tradition. The Bear phratry gave maize and fire in exchange for wild rice.[2] The Winnebago say that the "Great Spirit" gave maize and wild rice to one man at the same time.[3] From the above, and from other facts known about these Indians, it seems plain that the Menomini came into possession of wild rice relatively early—that is, before the complete organization of the tribe—while the Potawatomi and the Winnebago obtained it at a much later time.

The periods of the wild-rice harvest, as indeed of most opportunities for social gatherings, are gala days to the Indians. Social pastimes and religious ceremonies are strangely commingled. Some of the ways in which the Indians express themselves at the rice harvest are here given, and others are presented which wild rice seems to characterize more or less distinctly. The Indians of White Earth reservation, Minnesota, give a rice feast. "The Manomin (wild rice) feast comes in the fall after gathering rice and before the winter hunt. It is a sort of thanksgiving, and prayers are offered to Manitou."[4] The Ojibwa Indians in Canada, about Lake of the Woods, perform the following ceremony: "Before commencing to gather the rice they make a feast, and none are allowed to gather the grain till after it. They thank the Master of Life for the crop, asking him to keep off all storms while they are harvesting."[5] The first fruits gathered by the Dakota "are set apart for the purpose of a spiritual or holy feast; the first corn or wild rice of the season, the first duck or goose killed when they appear in the spring, are all reserved for the feast, at which those Indians only who are entitled to wear the badge of having slain an enemy, are invited."[6] Tanner, who spent all his life with the Ojibwa, continually speaks of such feasts. At the sacred dog feast on the White Earth reservation the Ojibwa Indians usually kill and stew a dog in rice; certain ceremonies, including a dance, are then performed, after which the dog is eaten.[7] Mr Long wrote of the "Poes" (Potawatomi) that they compelled their prisoner, Mr Ramsey, of the American Fur Company, to eat his death feast at the war kettle

[1] Hoffman, The Menomini Indians, Fourteenth Annual Report of the Bureau of Ethnology, part 1, p. 40.

[2] Pokagon, letter, November 16, 1898.

[3] Information from the Winnebago near Elroy, Wisconsin, winter of 1898–99.

[4] Eleventh Census of the United States; Indians, p. 346.

[5] Pither, letter, November 18, 1898.

[6] Lockwood, Early Times and Events in Wiseonsin, appendix 6, pp. 98–196, in Wisconsin Historical Collections, vol. II, p. 181.

[7] Eleventh Census of the United States; Indians, p. 346.

before he was to be tortured. The feast "consisted of dog, tyger-cat, and bear's grease, mixed with wild oats [wild rice]."[1]

Carver gives an account of a unique rice feast among the "Naudowessies" (Dakota). They paid uncommon respect to one of their women, and "They told me that when she was a young woman, for at the time I saw her she was far advanced in life, she had given what they termed a rice feast. According to an ancient but almost obsolete custom . . . she invited forty of the principal warriors to her tent, where having feasted them on rice and venison, she by turns regaled each of them with a private desert, behind a screne fixed for this purpose in the inner part of the tent." . . . "So sensible were the young Indians of her extraordinary merit, that they vied with each other for her hand, and in a very short time one of the principal chiefs took her to wife." . . . "It is however scarcely once in an age that any of their females are hardy enough to make this feast, notwithstanding a husband of the first rank awaits as a sure reward the successful giver of it; and the custom, I since find, is peculiar to the Naudowessies."[2] The rice was used probably because it was the greatest delicacy which could be set before guests. Yet it seems to have been the kind of food which always characterized this extraordinary social function.

As might be expected from the meaning of their name, the Menomini Indians are more deeply influenced by wild rice than are other wild rice producing Indians. Special investigation[3] has proved, according to Indian traditions, what the facts recently given from Dr Hoffman's report seemed clearly to show, i. e., that the Menomini came into possession of wild rice at the very inception of their tribal organization. Mä'näbush, one of the numerous mythic half-god half-man personages of the myths of the Menomini Indians, created the bear, which came out of the earth at Menominee river (between the upper peninsula of Michigan and Wisconsin). Mä'näbush determined to make an Indian of the bear, and accomplished the feat at the end of four days. He called the Indian "Shekatcheke'nau," and made him the head of the Bear phratry, the first phratry of the Menomini tribe. Then taking the Indian to the river he showed it to him and gave it into his hands, with all its fish, its great beds of wild rice, and many sugar trees along its banks. He said, "I give these things to you, and you shall always have them—the river, the fish, the wild rice, and the sugar trees." Shekatcheke'nau answered, "I thank you. It is all right. I will always work for you."

In a short time Wĭshki'no, the eagle, the thunderer, came from lake Winnebago to visit at Menominee river. He became the head

[1] Long, Voyages and Travels . . . p. 146.

[2] Carver, Travels, pp. 245, 246. This paragraph, and other matter from this author, is given purely on Carver's authority; he is not so reliable on Indian subjects as could be desired, and this account of the rice feast savors strongly of the fabulous.

[3] Information from Menomini, at Menomini reservation, in the autumn of 1899.

of the Big Thunder phratry, the second phratry of the Menomini tribe. The world mission of this eagle, whom Mä'näbush had also changed into an Indian, was to bring rain, and fire, and maize to men. When Shekatcheke'nau saw the eagle, he said, "I am glad to receive you. You will always stand by me. You will always be my warrior. You see everything—the river with fish, the beds of wild rice, everything—I turn all of these over to you." When the wild rice was ripe in the fall, the eagles, all decorated with feathers, had their canoes and rice sticks ready. After they had gathered four canoe loads, a thunderstorm came. It destroyed all of the grain which had not been gathered, and spoiled the beautiful feathers on the heads of the eagles. Then Wĭshki'no said to Shekatcheke'nau, "It won't do for you to give me the wild rice, for wherever I go there is thunder, and wind, and rain. I will give it all back to you, and you'd better control it always." So after that when rice harvest came Shekatcheke'nau called all of his people together, and they made a feast, and smoked, and asked the Great Spirit to give them fair weather during the harvest. Since then there has always been a fine, stormless harvest season.

It is remembered that Mä'näbush told Shekatcheke'nau that he would always have wild rice. This fact has so influenced the Menomini Indians that they will not sow the grain. If the Great Spirit wants them to have it, it will grow of itself. According to their traditions, when the tribe moved from Menominee river to Lake Winnebago and vicinity, no wild rice grew there, but it soon came to supply their wants; Lake Poygan even being named by them. It is called "Powa-hĕ'-cännĕ" or "threshing [or] striking [wild rice]." Mr Gauthier, who was government interpreter for over forty years among the Menomini, said, in 1899, that the Indian agent who removed the tribe in 1852 from the vicinity of Lake Winnebago to their present reservation, desired them to gather wild rice and sow it in their new home. At each council he sought to induce them, but they unanimously refused. Nio'pet, the very intelligent chief of the tribe, says that when they came to their present home, wild rice grew only in scattering stalks in Shawano lake. In about ten years it was plentiful, and has been their annual harvest field since. He also says that it has nearly died out in the vicinity of Lake Winnebago, where previously they gathered it in great quantities. Then the old chief asked "Why?" and smiled satisfiedly as though he knew.

Among the Ojibwa of Wisconsin wild rice is frequently spoken of in folktales. Generally it does not characterize these stories, but is mentioned as any other natural product might be. However, two tales were found among the Wenibojo' stories at Lac Courte Oreille reservation which explain the discovery of wild rice. Wenibojo', the mythic personage of the Ojibwa Indians (the same as Mä'näbush

of the Menomini), made his home with his grandmother, Noko'mĭs. One day the old woman told him that he ought to prove himself a manly fellow; he ought to take a long journey through unknown forests; he ought to go without food and get accustomed to the hardships of life. So Wenibojo' told her that he was going away, that he was going to fast; and taking his bow and arrows he wandered out into the forest. Many days he wandered, and finally came to a beautiful lake full of wild rice, the first ever seen. But he did not know that the grain was good to eat; he liked it for its beauty. He went into the forest and got the bark from a large pine tree. From this bark he made a canoe with which to gather the grain. After the canoe was made, he went to Noko'mĭs, and they both came and gathered the rice, and sowed it in another lake. He then left Noko'mĭs by this lake of sowed wild rice, and, taking his bow and arrows, started away again into the forest. As he wandered along some little bushes spoke to him and said: "Sometimes they eat us." Wenibojo' at first paid no attention to the address, but finally he said: "Who are you talking to?" On being told that he was the one addressed, he stooped down and dug up the plant. He found a long root, as long as an arrow. It tasted very good to him, so he dug and ate a great many of the roots. He ate so many that he became sick, and lay there three days too ill to move. When finally he got up, he wandered on. He became very faint and hungry; other plants spoke to him, but he was afraid to eat them. At last he was passing along the river, and saw little bunches of straw growing up in the water. They spoke to him and said: "Wenibojo', sometimes they eat us." So he picked some of it and ate it, and said: "Oh, but you are good! What do they call you?" "They call us mano'mĭn [wild rice]," the grass answered. Wenibojo' waded out into the water up to his breast and beat off the grain, and ate and ate, but this time he was not sick. Finally he remembered the wild rice which he and old Noko'mĭs had sown, so he returned home to his mano'mĭn lake.

The other tale of the origin of wild rice is taken from a series of experiences of Wenibojo'. One evening he returned from hunting, but he had no game. As he came toward his fire he saw a duck sitting on the edge of his kettle of boiling water. After the duck flew away Wenibojo' looked into the kettle and found wild rice floating upon the water, but he did not know what it was. He ate his supper from the kettle, and it was the best soup that he had ever tasted. So he followed in the direction which the duck had taken, and came to a lake full of mano'mĭn. He saw all kinds of duck, and geese, and mud hens, and all other water birds eating the grain. After that, when Wenibojo' did not kill a deer, he knew where to find food to eat.

It is a common belief on the Lac Courte Oreille reservation that the Ojibwa Indians first found wild rice on the Red river of the North,

as far west, they say, as the Ojibwa ever dwelt. This was about six generations ago. As Warren said that they estimate a generation at forty years, it would be about 1660. Sixteen hundred and sixty is probably near the time the Ojibwa came into possession of wild rice as a food, for Warren has said that they left La Pointe island in Lake Superior and came south and west onto the mainland between 1612 and 1671. On the Red river of the North the Indians used the grain and found it good. They gathered and sowed some at Snake river, Minnesota. Then they sowed it at Shell lake, and so on to the east in Wisconsin. It was distributed eastward from one Indian to another until today it is found wherever the Ojibwa lives.

Dependence of the Indian on Wild Rice

The food of primitive men varies with the season of the year and the section of the country in which they are. They frequently live upon one staple at a time. In the region of the upper lakes three or four weeks in March, April, or May were given to the making of maple sugar, during which time the people often lived almost exclusively on this food. Indeed, Alexander Henry says of maple sugar making between April 24 and May 12, 1768, "We ate nothing but our sugar during the whole period. Each man consumed a pound a day, desired no other food, and was visibly nourished by it."[1] Soon the early berries were ripe, then green corn (maize) was edible, if the Indian cultivated it, and in September the wild rice came. Both in the spring and autumn wild fowl were countless in the vicinity of rice fields, and furred game and fish were plentiful all the year. The winter was the season for hunting, when stores of pemmican[2] were laid up.

In some sections of the country the rice crop failed partly or wholly at frequent intervals. Information from such sources as Chief Pokagon and government farmers at Indian reservations shows that it so fails once in three or four years.[3] Again, at Grass lake, Lake county, Illinois, where there are 1,000 acres of wild rice, it has not been known to fail in the last sixty years.

These preliminary remarks have been thought necessary in order that the historical sketch and summaries which follow may not overemphasize the value of wild rice in the household economy of the Indians and early whites, for of course other foods must here be largely ignored.

Very positive evidence of the value of wild rice to the Indian comes to us from various Indian agencies. Mr D. P. Bushnell's report for

[1] Henry, Travels and Adventures, p. 218.

[2] Pemmican is lean buffalo meat dried and pounded fine, then mixed with melted fat and packed in buffalo skins. It hardens and will keep for years, but if exposed to moisture it soon becomes musty and unfit for use. One buffalo would make a sack of about 100 pounds. It is a very palatable, nourishing, and healthful food (Harmon).

[3] See page 1099 et seq.

1838 contains the following concerning the Ojibwa of Lake Superior and the Mississippi river:

> It is highly desirable that the annuity hereafter to be paid to the Chippewas should be paid between the 1st of June and last of August. [Some of these Indians had to make a total journey of 400 miles to get their annuity.] Their spring hunts are not finished before the former period, and they commence about the 1st of September to gather the wild rice, which is a great article of food with the interior Indians. As soon as they have finished gathering the rice, the fall hunt commences. If called together after the 1st of September, they will generally be more injured than benefited by the sum they receive.[1]

Mr Alfred Brunson, Indian Agent, La Pointe, Wisconsin, wrote Governor Doty, under date of January 6, 1843, as follows: "By the Chippeway treaty of 1837 these Indians are to receive $35,000 annually for twenty years, and by the treaty of 1842 they are to receive an additional annuity of $31,700 for twenty-five years, or a total annuity of $66,700." "The annual products of these lands [between the Mississippi river and Lake Superior] are worth much more to the Indians than they are to receive . . . . The annual value of the furs are estimated at $25,000. There are about 1,000 families," who make $30,000 worth of sugar. "The same number of families average 25 bushels of rice at $1, [which] is $25,000." Canoe material he figures at $10,000, and game and fish at $100,000, or a total natural production of $190,000.[2] Subtracting the value of the canoe material and furs, we find that the value of the wild rice was about one-sixth of that of the total remaining (edible) production.

The following protest, signed by "Martin, head chief of the Ottawa," representing Ottawa Lake, Chippewa River, and Lac Chetac bands, accompanied Brunson's letter (the conditions of the treaty of 1842 were not understood by the chiefs when they signed it): "We have no objection to the white man's working the mines & the timber & making farms. But we reserve the birch bark & cedar, for canoes, the Rice & Sugar trees & the privilege of hunting without being disturbed by the whites."[3]

Again, in 1843, Mr Brunson wrote to Governor Doty, under date of January 10: "But what is of more importance to the Indians than anything else, in reference to their payment, *is the time & place of it*" (the italicized words are underscored in the letter). "But selecting this place[La Pointe] to pay the Inds. of the Mississippi, is next to rendering their payment a nullity: because they loose more by it than their payments are worth to them. If taken away from their Rice harvests they loose more than the whole payment amounts to, say about $7 per head. And if taken away from their fall hunts, it amounts to the same thing." "If the payment of all the Chippewas *must* [underscored in letter] be

[1] Indian Affairs Report, 1838, document 20.
[2] Brunson, manuscript letter book, p. 25, in Wisconsin Historical Society's manuscript collection.
[3] Ibid., p. 47.

at the Pointe . . . [they should be] paid not later than the first of July [in which case] they can reach their rice fields in time to harvest."[1]

One of the chief things the Indians desired in being located on reservations was the presence of rice fields, as is seen in the following cases. The first is a "Petition of the head chiefs of the Chippewa tribe of Indians on Lake Superior," February 7, 1849, as follows:

> That our people, to-wit, sixteen bands, desire a donation of twenty-four sections of land, covering the graves of our fathers, our sugar orchards, and our rice lakes and rivers, at seven different places now occupied by us as villages, viz: At View Desert, or Old Garden, three sections; at Trout Lake, four sections; at Lake Coteré, four sections; at La Pointe, four sections; at Ontonagon, three sections; at La Ance, three sections; and at Pah-po-goh-mony, three sections. That we desire these lands for the purposes specified.[2]

In 1858 the agent at Fond du Lac (Lake Superior) wrote:

> The Indians at this place are disappointed and sore with regard to the boundary lines of their reserve [made according to treaty of September 30, 1854]. They state that the "Rice lakes" [Perch lake and others of its vicinity] which were to be included in their reservation have been entirely overlooked and left out, and they are unwilling to relinquish their claim to them. These lakes lie a few miles south of the present reserve, and abound in fish and wild rice, which constitute the principal subsistence of these Indians, and their attachment to them is very strong. . . . They wished me to say to their Great Father that they are willing to give up a large portion of the land contained in the present reserve if he will attach to the remainder the coveted lakes.[3]

The agent for these Indians reported, November 29, 1860, that the reservation should have included "Perch lake" which was the only section of the country where they could support themselves the year round. There they obtained an abundance of "field-rice and fish," sugar, and game. There also was their chief settlement. After the boundary was made to include this lake, he said:

> It was gratifying to us to witness the pleasure with which the Indians received the intelligence that their farms and rice fields had at last been secured to them, and that they might now go on and cultivate their lands and garner their rice without the fear of being molested or driven away by the white man.

In 1863 Hole-in-the-day (Ojibwa chief) spoke for his people at St Paul, June 7, as follows (they had been moved from Wisconsin to Minnesota, and he asked that they might be removed to a new reservation): "Say that strip of land lying on the Wild Rice river between 47° and 48° north latitude, and east of the Red river. There is every advantage of good soil, game, fish, rice, sugar, cranberries, and a healthy climate." He asked for a land that will "combine all the elements of comfort and content to our people; that is, good land, game, fish, rice, sugar. Here we have neither, to any considerable extent.

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[1] Brunson, manuscript letter book, p. 50, in Wisconsin Historical Society's manuscript collection. These last facts Mr Brunson also wrote under date of July 20, 1843, to Robert Stuart, Acting Superintendent Indian Affairs at Detroit; see manuscript letter book, p. 104.

[2] House Misc. Doc. 36, Thirtieth Congress, second session.

[3] Indian Affairs Report, 1858, p. 48.

True, we may find a little rice and a few fish, but not sufficient for my people, not enough to save them from starvation."[1]

In 1865 the agent speaks of the impracticability of moving the Mississippi and Mille Lacs bands of Chippewa to the Red lake country. After speaking of the scarcity of good land and sugar trees, he continued: "There is another great item which must not be overlooked; that is, there are no rice fields in that country, . . . or fishing lakes."[2]

A letter from La Pointe agency, Ashland, Wisconsin, September 10, 1891, is as follows:

> In many of the streams and lakes of these reservations wild rice grows luxuriantly. This important cereal is carefully harvested by the Indians, and constitutes an important part of their subsistence stores. It is palatable and nutritious, and by many white people is preferred to the white rice of commerce. The rice fields are the resort of numerous wild fowl, which are captured by the Indians and either consumed at home or sold in the neighboring towns. The revenue thus derived from the rice fields renders them a very important part of the Indian domain.[3]

This recent testimony of the value of wild fowl to the Indian suggests their much greater utility in past years; and such in fact the following citations prove. When it is remembered that wild fowl are to-day relatively scarce, that through the Central States the sight of any considerable number of wild pigeons is rare, even to one skilled in woodcraft, but that our fathers yet living saw them in such flocks that they shut out the light of the sun, a better perspective will be obtained for judging of the number and value of wild fowl when the Indian and his natural foods were undisturbed by the white man. We read of the Indians of White Earth reservation in 1890, that from August to December they hunt duck, which are found in countless numbers around all the wild-rice lakes.[4] Near the middle of the century wild fowl, as geese, duck, teal, etc., were reported in vast quantities, feeding on wild rice along Green bay,[5] Minnesota river,[6] Winnipeg river,[7] and Lake Winnebago[8] and vicinity.

Carver,[9] in 1766, '67, '68, says the "geefe, ducks, and teal . . . . which refort to it [Lake Winnebago, Wisconsin] in great numbers, are remarkably good and extremely fat, and are much better flavored than thofe that are found near the fea, as they acquire their exceffive fatnefs by feeding on the wild rice."

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[1] Indian Affairs Report, 1863, p. 329 et seq.

[2] Ibid., 1865, p. 446.

[3] Indian Affairs Report, 1891, p. 471.

[4] Eleventh Census of the United States: Indians, 1890. See also Grasses and Forage Plants of the Dakotas, by Thos. A. Williams, p. 17.

[5] Biddle, Recollections of Green bay in 1816–17, in Wisconsin Historical Collections, vol. I, p. 63.

[6] Featherstonhaugh, Canoe Voyage, pp. 331, 335, 336.

[7] Henry Youle Hind, Narrative, pp. 115, 116.

[8] Caleb Atwater, Indians of the Northwest, p. 181; see also Life of George Copway, p. 65, for immense flocks of duck feeding on the wild rice each fall in Rice Lake, Ontario, Canada; also Ellis, Recollections, concerning wild fowl in Wisconsin rice fields.

[9] Carver, Travels, pp. 37–38; see also p. 522.

Hennepin,[1] in 1697, speaks of flocks of duck, swan, and teal which devour the rice at Mille Lacs: "Les femmes [Ojibwa Indians] en lient plufieurs tiges [of wild rice] enfemble avec des écorces de bois blanc, pour empecher que la multitude des Canars, des Cignes, & des Sarcelles, qui s'y trouvent ordinairement, ne la mangent toute."

Dablon speaks of clouds of swans, bustards, and ducks which he saw in Green bay in 1670. The Indians caught them in nets, often taking fifty in one night.[2]

It is unnecessary either to emphasize the value of these fowl as food to the Indian or to call attention to the fact that the fowl were plentiful largely because the wild rice offered them such abundant, wholesome food, but the following point might be overlooked. These fowl were really gleaners, and picked up and preserved in most delicious form the grain which otherwise the Indian would have lost entirely. Heavy waterfowl could not do very great damage to the standing plant, and while the grain was standing the Indian must gather his harvest. When the kernels shelled out into the water they were loss to the Indian, but gain to the fowl, which picked them up by diving to the bottom. It is interesting and instructive to note that of the illustrations cited in the chapter on production, all except the last two—from the Chicago Tribune, October 6, 1898, and Bressany—show the Indian as busied in capturing wild fowl while the Indian woman gathers the grain.

Further evidence of the value of wild rice to the Indian, and of his dependence on it, is found in the following negative testimony. In all of these cases the Indian, for one reason or another, is unable to get his accustomed supply. In some sections of the country the rice crop fails partially or wholly as often as once in three or four years,[3] while in other sections it has not been known to fail for long periods of time.[4] The reason for this difference is doubtless found in the nature of the most frequent cause of failure, viz, drowning by high water.[5]

[1] Hennepin, Nouvelle Découverte, p. 313* (fol. 0*4).

[2] Relations de Jésuites, Dablon, 1670, p. 96.

[3] Chief Simon Pokagon of the Potawatomi, St. Joseph county, Michigan, says "once in four years" (letter, Nov. 16, 1898). N. D. Rodman, Government farmer in charge of Lac Courte Oreille reservation, Wisconsin, says "once in three years" (letter, Nov. 11, 1898). Stephen Gheen, Government farmer, Vermilion Lake (Nett Lake) reservation, Minnesota, says crops fail "wholly about every three years" (letter, November 15, 1898).

[4] Peter Phalon, Government farmer, Fond du Lac reservation, Minnesota, says, "complete failure of crop never occurs. Crop some seasons is so small it would not pay to gather, there being barely enough for seed . . . After such failures it takes two years to grow a full crop . . . Every alternate year a full crop may be expected, provided no floods occur . . . After a heavy crop one year must elapse before the old straw, necessarily remaining in the beds, decays, thus making room for a full new crop" (letter, December 27, 1898). Roger Patterson, Government farmer, Bad River reservation, Wisconsin, says "the crop never totally fails, but small crop occurs about once in three years" (letter, November 23, 1898).

[5] Henry Youle Hind, Narrative, p. 119; Indian Affairs Report, 1867, pp. 341, 342; ibid., 1870, p. 309; ibid., 1871, p. 597 et seq.; ibid., 1880, p. 175; R. J. N. Pither, letter from Rat Portage, Ontario, Canada. Mr Pither was twenty-five years Indian agent, and the same length of time Hudson Bay Company's trader; N. D. Rodman, op. cit.; Stephen Gheen, op. cit.; Peter Phalon, op. cit.; Roger Patterson, op. cit.; McKenney, Tour of the Lakes, p. 337.

Where high water is never or seldom possible, failures must be less frequent. Frosts also destroy the young plant:[1] while, when the grain is ripe, a storm of a few hours will thresh out into the bottom of the lake or river an entire crop:[2] or, if the storm occurs while the stalk is green and tender, it will be bent over into the water, from which it can not rise again.[3]

Sir John Richardson wrote that in 1847 multitudes of caterpillars spread like locusts over the neighborhood of Rainy river. "They destroyed the *Folle avoine* [wild rice] on Rainy lake," though they did not touch wheat.[4] A letter dated "American Fur Company's establishment, Fond du Lac" (Lake Superior), August 8, 1826, speaks of a freshet the previous spring. It "destroyed the wild rice—and this makes our visit with the supplies we have brought with us so opportune . . . We are here at a moment of the utmost need of the poor Indians."[5]

In 1849 the rice crop of the Pillagers (Ojibwa of Leech lake, Minnesota, numbering about 1,050) entirely failed, and on this article they depended mostly for their winter's support. "Hunger and starvation menace them: and in order to procure means of subsistence their hunters this winter will be forced to press westward till they find the buffalo."[6] The Ojibwa of Sandy lake, Minnesota, numbering about 300, lost their rice both in 1849 and in 1850. The majority of them passed their winters in the vicinity of Crow Wing and Fort Gaines, Minnesota, on ceded lands, hunting and begging for a living.[7] The "Sugwun-dug-ah-win-in-e-wug" (Ojibwa in Minnesota north of Lake Superior) also lost their rice crop in 1850, "and this people anticipate with aching hearts the sufferings and privations of the approaching winter."[8] These Indians also depended much upon rabbit and reindeer for winter consumption.

Mr Hind, in passing down the Rainy lake waterway in 1857, said that the Indians he met lamented the failure of the rice that year, and this failure, together with poor fishing and extraordinary mortality among the rabbits, threatened them with famine during the coming winter.[9] September 30, 1867, the agent of the Ojibwa of the Mississippi (Minnesota), wrote that the rice crop appeared likely to be almost an entire failure. "This is a great calamity to the Indians, as they depend largely upon it for subsistence, and I fear suffering will ensue in consequence."[10] The Ojibwa of Lake Superior (Wisconsin) lost their crop both in 1869 and 1870 and are "compelled to scatter over

[1] Chief Pokagon, op. cit.
[2] Dr Morse, Report, appendix, p. 52.
[3] Roger Patterson, op. cit.
[4] Henry Youle Hind, Narrative, p. 93. For further causes of failure, see chapter on botany, section "Natural Enemies."
[5] McKenney, Tour of the Lakes, p. 337.
[6] Indian Affairs Report, 1850, p. 57.
[7] Ibid., p. 56.
[8] Ibid., p. 59.
[9] Henry Youle Hind, Narrative, pp 118, 119.
[10] Indian Affairs Report, 1867, pp. 341, 342.

the country and seek such subsistence as accident may offer them."[1] Of the Bad River Indians (Ojibwa of Wisconsin) in 1880, we read: "The rice crop will be a failure, and the Indians depend upon this for winter use and also for means of obtaining such articles as they need and are not furnished by the Department."[2]

Comment is unnecessary in the face of such testimony. All shows that the failure of the crop was so infrequent that the Ojibwa Indians depended upon wild rice for their winter subsistence, and that its loss could not be made up by any other resource of natural production.

Dependence of the White Man on Wild Rice

Carver wrote, in 1766, in regard to the use of wild rice by the whites:

> In future periods it will be of great fervice to the infant colonies, as it will afford them a prefent fupport, until in the courfe of cultivation other fupplies may be produced.[3]

Again, in 1828, Timothy Flint said:

> It is astonishing, amidst all our eager and multiplied agricultural researches, that so little attention has been bestowed upon this interesting and valuable grain. It has scarcely been known, except by Canadian hunters and savages, that such a grain, the resource of a vast extent of country, existed. It surely ought to be ascertained, if the drowned lands of the Atlantic country, and the immense marshes and stagnant lakes of the south, will grow it. It is a mistake, that it is found only in the northern regions of the valley. It grows in perfection on the lakes about Natchitoches, south of 32°; and might, probably, be cultivated in all climates of the valley. Though a hardy plant, it is subject to some of the accidents, that cause failure of the other grains.[4]

White men have used this grain chiefly in and near the wild-rice district, yet "in some parts of the Bay [Quinto bay, Ontario, Canada] there grew wild rice, which was much prized by the Indians, and which was often used by the settlers . . . . The grain was much smaller than the imported article; not unfrequently, the Indians would collect the grain and sell it to the settlers."[5]

Alexander Henry said that on July 20, 1775, at Lake Sagunac or Saginaga, 60 leagues from Grand Portage, he bought fish and wild rice "which latter they [the Indians] had in great abundance."[6] July 30, he recorded at "Lake des Iles," or Lake of the Woods, that fish appeared to be their summer food. He found there a village of 100 people, by whom 20 bags of wild rice were given him, and he obtained there a total of 100 bags of nearly one bushel each. He says that without a large quantity of rice the voyage beyond the Saskatchewan river could not have been prosecuted to its completion.[7] Again, August 1,

[1] Indian Affairs Report, 1870, p. 309.
[2] Ibid., 1880, p. 175.
[3] Carver, Travels, pp. 522–524.
[4] Flint, Geography and History, vol. I, p. 85.
[5] Carniff, History of the Settlements of Upper Canada (Ontario), with special reference to the Bay Quinte, Toronto, 1869, pp. 587–588.
[6] Henry, Travels, p. 241.
[7] Ibid., pp. 243, 244.

he purchased wild rice on a sandy island in Lake of the Woods.[1] And August 16, at Lake Winnipegon, or Winipec (Winnipeg) the Indians "made me the usual presents of wild rice and dried meat."[2] All of this rice mentioned by Henry was of the harvest of some preceding year. It is very remarkable that only one month before a new harvest. a village of 100 people could produce a bushel of rice per capita. No better testimony than Henry's could be given for the dependence of traders upon wild rice during those early years.[3]

Early in January, 1778, the provisions at the trading station at Lac la Mort gave out, so John Long, the trader, made a journey of several days to Lake Monontoye (this journey was south toward Lake Nipegon, north of Lake Superior), to try to get some wild rice of Mr Shaw, a fellow trader, as the Indians said it grew in swamps there.[4] From Mr Shaw's station Mr Long returned in due time with "an Indian slay [sleigh] loaded with wild rice and dried meat." On February 23, 1778, "another band [of Indians] came in [to Lac la Mort] consisting of about eighty, men, women and children, who brought dried meats, oats [wild rice], bears' grease, and eight packs of beaver."[5] Again Long said of Weed lake (Lake Schabeechevan):

> On this lake there are about one hundred and fifty good hunters, who make a great many packs of beaver, &c. and this was one inducement for settling here, which was increased by the prospect of a plentiful supply of fish, rice, and cranberries, which are winter comforts of too great consequence to be slighted.[6]

Mr Long wrote that the last of January, 1779, he was again reduced in provisions "to a few fish and some wild rice, or menomon (which are kept in *muccucks* or bark boxes), to support myself and seventeen men; the allowance to each being only a handful of rice and a small fish, about 2 lb. weight, which is boiled together and makes pleasant soup."[7]

Jean Baptiste Perrault's Indian Life in the Northwestern Region of the United States in 1783 (manuscript), as translated by Schoolcraft,[8] says it was the custom for the traders to buy provisions (wild rice and dried meat) of the Indians. But during the winter of 1783 "the greater part of them [Indians around Leech lake, etc.] had gone to pass the winter in the prairies west of the Mississippi [where buffalo were then plentiful] . . . they had no wild rice, the abundant rains having destroyed it." Notwithstanding this failure, early in May, 1784, these same Leech Lake Indians furnished two fawn skins[9]

[1] Henry, Travels, p. 244.

[2] Ibid., p. 251.

[3] Voyageurs in their journeys subsist on what ever they can find in the country through which they are passing, rarely taking enough to last them through. The great waterway from Lake Superior to the Northwest, by way of Grand Portage, along Lake of the Woods and the Winnipeg system, frequently furnished four different varieties of staple; the first stage furnished maize, the next rice, the third pemmican, the last buffalo meat (Coues, Henry-Thompson Journal, vol. II, p. 539).

[4] Long, Voyages and Travels, p. 58.

[5] Ibid., pp. 75, 85.

[6] Ibid., p. 109.

[7] Ibid., p. 117.

[8] Schooleraft, Indian Tribes, vol. III, p. 356.

[9] Ibid., vol. III, p. 356. Fawn skins were taken off nearly whole for use as rice sacks; see also the same work, p. 359.

of wild rice, which had been saved from the harvest of some previous year.

Pike, in 1805,[1] describes the Northwest Company's fort at Leech lake as being 60 by 25 feet, one and one-half stories high, with a loft extending over the entire building, and containing, besides bales of goods and peltries, "chests with 500 bushels of wild rice." The same author says of this company's station at Lake de Sable (Sandy lake) in 1806:

> They raise plenty of Irish potatoes, catch pike, suckers, pickerel, and white-fish in abundance. They have also beaver, deer, and moose; but the provision they chiefly depend upon is wild oats, of which they purchase great quantities from the savages, giving at the rate of about one dollar and a half per bushel.[2]

Harmon wrote in 1804:

> This grain is gathered in such quantities, in this region, that, in ordinary seasons, the North West Company[3] purchase, annually, from twelve to fifteen hundred bushels of it, from the Natives; and it constitutes a principal article of food, at the posts in this vicinity.

In 1813 (probably) a party of 70 persons, composed of Hudson Bay Company traders, Indians, and John Tanner, made the trip from Rainy lake to the mouth of the Assinneboin river. They had Indians as hunters to accompany them, "and as we had great quantities of wild rice, we were pretty well supplied with food."[4] Colonel Robert Dickson, Indian agent for the British during the war of 1812–15, wrote to John Lawe of Green bay from Lake Winnebago, February 14, 1814: "All I have left at present is 8 handfulls of foll avoin [wild rice]—10 lbs. Flour—2 Shanks Deers legs three frozen Cabbages & a few potatoes."[5]

Still further light is thrown on the use of wild rice by the traders from the three following extracts. Mr Doty wrote to Governor Cass, under date of November, 1820, of the Indian trade on and about Sandy lake, Aitkin county, Minnesota: "A skin is estimated at $2 . . . The articles received from the Indians are sugar, rice, furs. A mocock of sugar, weighing about forty pounds, is received for four skins; a sack of rice, two skins;" etc. "The American South West Fur Company have the chief trade of this country." They sent in packs from Leech lake, Sandy lake, and Fond du Lac in the years 1819 and 1820.[6] The Detroit Gazette, of November 24, 1820, says: "The fish and the wild rice are the chief sustenance of the traders, and without them the trade could scarcely be carried on [in the Leech lake and Sandy lake districts]."

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[1] Coues, Pike, vol. I, p. 282. [2] Pike, Expeditions, p. 60.

[3] In 1792 the Northwest Company operated all over the Ojibwa country in the United States. They had four departments: First, the Fond du Lac; second, the Folle Avoine, including the country drained by the St Croix river; third, the Lac Courte Oreille, including the country drained by the Chippewa river; fourth, the Lac du Flambeau, including the country drained by the Wisconsin river (Warren, History of the Ojibwas, chapter XXXIV).

[4] Tanner, Narrative, p. 219. [5] Wisconsin Historical Collections, vol. XI, p. 292.

[6] Morse, Report, p. 55.

The section of country referred to in the following quotation produced little, if any, maize, and at the time of the statement the bison were driven several days westward, so that about all the consumable provisions which the Indians could supply were wild rice and maple sugar. Robert Stuart, agent of the American Fur Company, wrote to George Boyd, agent for Indian affairs at Michilimackinac, asking permission to convey "only twelve barrels of whiskey" into the country where they wished to extend their trade, "but the difficulties they have at present to contend with in extending their trade in a direction where they come in immediate contact with the Hudson Bay Company along the frontier, from the Grand Portage to the Lake of the Woods, the situation of the country, and the means of conveyance, completely preclude them from sending in provisions for the support of the people who are necessarily employed in transporting their goods, and for the prosecution of the trade. The Hudson Bay Company get most of their provisions from the Indians for liquor; and as long as those people have this in their power, our people must inevitably be starved."[1]

Doty says, quoted by Dr Morse in 1822: "The fish and the wild rice are the chief sustenance of the traders, and without them the trade could scarcely be carried on."[2] Schoolcraft, who gathered his facts during this period, says, in speaking of the wild rice, "Much of it is sold to the traders, to subsist their men, on their visits to the Indians."[3]

Again we hear from Leech lake in 1835 concerning Mr William T. Boutwell, a missionary:

> His remoteness from the white settlements exposes him to many inconveniences, and compels him to depend almost entirely on the fish of the lakes, and the wild rice gathered in the marshes and creeks, for subsistence; and these afford but a precarious supply. As game is every year becoming scarcer, and their rice so frequently fails, the Indians will soon be driven to the alternative of cultivating the land or perishing by famine.[4]

In the year 1852, Mrs Ellet, a traveler, was given by Mrs Ansell Smith, who resided near the Falls of the St Croix river, "a sack made by the Chippewas [Ojibwa] of braided strips of bark, in a shape rudely resembling a papoose, filled with wild rice which is one of the staples of the territory . . . They [the Ojibwa] sell large quantities to the whites, some preferring it to the common rice of the south."[5] It is unnecessary to cite more instances, but wild rice has been used by

[1] Papers of George Boyd, vol. I, manuscript letter 117 (circa 1820), in Wisconsin Historical Society's manuscript collections.

[2] Morse, Report, appendix, p. 31.

There were 17 trading posts about the headwaters of the Mississippi river in 1826. Six were of the Columbia Fur Company, 9 were of the American Fur Company, 1 was at Fort Green, 1 was a post factory near Fort Snelling, on the St Peters (Minnesota) river (from a "Circular [from] Indian agency on St Peters (Upper Mississippi), 2d April, 1826," in Papers of George Boyd, vol. II, manuscript 90).

[3] Schoolcraft, Indian Tribes, vol. III, p. 63.

[4] Indian Bulletin for 1868, number 2, p. 102.

[5] Mrs Ellet, Summer Rambles, pp. 151, 152.

settlers and traders to the present time. If it could be cultivated with any certainty it would long ago have become a staple in America for the white population, as it was a staple for many thousand Indians before them. It will be interesting to notice its present use, for which purpose a few citations are presented.

Wild rice was offered for sale in 1896 in several towns in Wisconsin and Minnesota. Among those in the former state were Rice Lake, Chetek, and Cumberland, in Barron county, Bloomer in Chippewa county, Shell Lake in Washburn county, and Hayward in Sawyer county. In Minnesota it was sold in Bermidji and Park Rapids in Hibbard county, in Tower, St Louis county, in Grand Rapids, Itasca county, and in Minneapolis. Besides in the above markets it is also sold at the various Indian reservations and at towns in their vicinity.[1] Mention is made that it has been shipped quite extensively, during the past few years, from Chetek to Menomonie, Chippewa Falls, and other places, and Mr C. W. Moore retailed in Chetek, in 1894, about 1,500 pounds. His letter[2] also states that "all old residents of Barron and Dunn counties are very fond of it." Mr Charles C. Oppel,[3] of C. H. Oppel & Sons, wholesalers and retailers in Duluth and Tower, Minnesota, wrote from Tower: "Most of the cruisers, explorers, and homesteaders take it [wild rice] out into the woods with them. They claim that it is better than tame rice, because it don't take so long to prepare it. We also ship considerable; fact is, we handle from 1 to 2 tons a season." Mr J. A. Gilfillan[4] wrote from White Earth, Minnesota: "Among whites in Minnesota it is used only by missionaries and their families, old Indian traders, and very old settlers, and by a few merchants along the line of the St Paul Railroad." It is used in various lumber camps in the regions where it grows, and is also sold to gun clubs quite extensively; they plant it in small lakes as food for waterfowl. Besides the dealers above mentioned, Currie Brothers, Milwaukee, Wisconsin, advertise it in their Horticultural Guide for 1899. They have sold it in small quantities, one or two hundred pounds a year, for the past ten years.[5] L. L. May & Co., of St Paul, Minnesota, advertise it in Farm and Floral Guide for 1899. This latter firm sells about 3,000 pounds during the season.[6] All of the grain thus sold is gathered by the Indians.

The foregoing facts are sufficient to show that wild rice was a valuable and valued food to the pioneer whites of the northwest. It must be regretted that so nutritious a cereal was a precarious crop and has not, apparently, warranted extensive cultivation.

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[1] I am indebted to Mr Gardner P. Stickney, of Milwaukee, Wisconsin, for the use of manuscript letters concerning most of the facts here presented about the present use of wild rice by the whites.

[2] C. W. Moore, letter, Chetek, Wisconsin, April 29, 1896.

[3] Charles C. Oppel, letter, Tower, Minnesota, May 4, 1896.

[4] J. A. Gilfillan, letter, White Earth, Minnesota, May 4, 1896.

[5] Currie Brothers, letter, Milwaukee, Wisconsin, May 6, 1899.

[6] L. L. May & Co., letter, St. Paul, Minnesota, May 10, 1899.

Indian Population of the Wild-Rice District

It is believed that the section of country in the United States which grew wild rice so abundantly—that is, the northeastern and northern parts of Wisconsin and the part of Minnesota east of the Mississippi river—sustained an Indian population equal to all the other country known as the Northwest territory, viz, all those States lying between the Ohio and Mississippi rivers and Lakes Superior and Huron. This would include southwestern Wisconsin, Illinois, Indiana, Ohio,

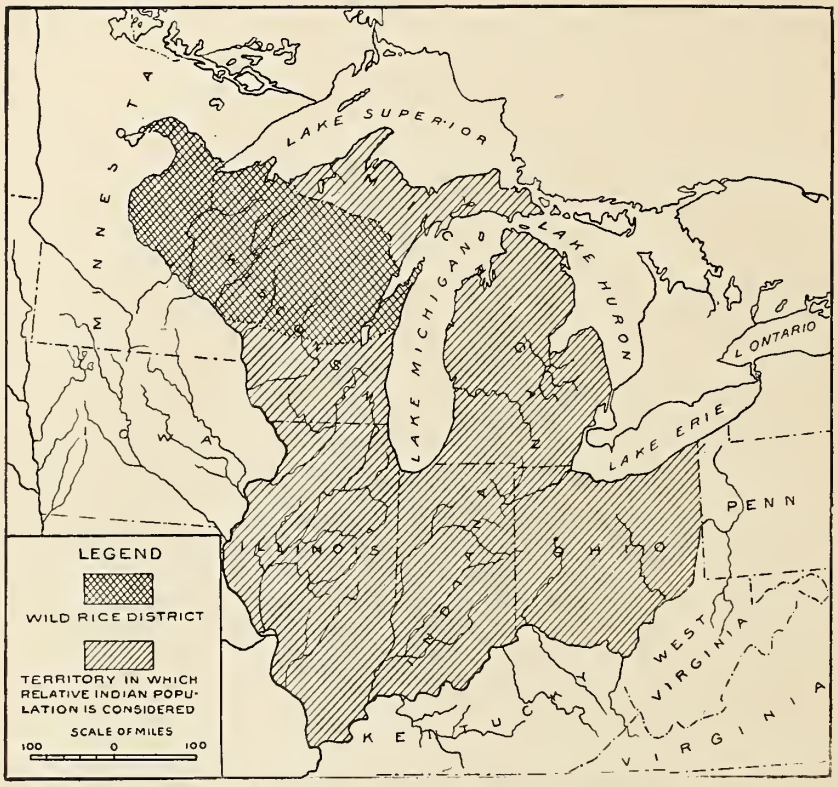

Fig. 48—Map showing areas whose population is compared.

and Michigan (see figure 48). This statement applies to the period when the Indian lived by aboriginal and not by civilized production. Estimates of the Indian population will be presented to substantiate the belief. Roughly speaking, the wild-rice district is about one-fifth of the entire territory considered.

Mr S. S. Hebberd[1] said of this section of the United States:

In fine, the six States lying east of the Mississippi and north of the Ohio—excluding Northeastern Wisconsin[2]—contained a population in 1670, of less than

[1] Hebberd, History of Wisconsin under the Dominion of France, p. 32 et seq.
[2] There are only five States in the included territory.

twelve hundred warriors [1,200] or eight thousand [8,000] souls . . . Turning now to Northeastern Wisconsin we behold a wonderful contrast. Stretched along both sides of Green Bay and the Fox river as far south as Green Lake county was a territory about one hundred and thirty-five miles long and of an average width of thirty miles, which fairly teemed with human life. In the North, and on the islands and along the eastern shore of Green Bay, were the Pottawattamies, a docile people, with a keen instinct for trade, who were seeking to become the middlemen in the commerce between the French and the tribes farther west; they numbered not less than five hundred warriors [500].[1] Across the bay were the Menominees, settled upon the river of the same name, a brave but peaceful people.

Charlevoix said of the Menomïni,[2] "they are very fine men and the best shaped in all Canada." Cadillac is very flattering in his remarks of them.[3] At the mouth of the Fox river was a mixed village gathered from four or five different tribes; a little distance up the river were the Winnebago. Mr Hebberd thinks that the number of the Winnebago, Menomini, and of the mixed village, could not have been less than 600 warriors. On the west side of Fox river were the Sauk, who numbered 400 warriors. A little way up the Wolf river were the Fox Indians, who numbered about 800 warriors, while southwest of these, on Fox river, was the great palisaded town where the Maskotin and Miami dwelt peacefully together. "Farther on, enveloped in the wild rice marshes, were other towns of the Kickapoos and Mascoutins; all of these tribes together could not have numbered less than the Foxes [800 warriors]."[4] "Here then in this narrow strip of territory was a population of thirty-one hundred [3,100] warriors, or at least twenty thousand [20,000] souls, nearly three times the number that roamed in the vast expanse of surrounding solitude."[5]

Nothing is claimed for the absolute value of the figures in the following estimates. Only their relative value is here considered. Inasmuch as the figures in each table are taken from the same investi-

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[1] Hebberd based his estimate, in part at least, on the statement that 300 warriors from this tribe came to Allouez at one time at Chequamegon bay (Allouez, Relations des Jésuites, 1667).

Père Gabriel Dreuillettes said that they had 700 warriors, or 3,000 souls; besides, there were with them 100 men of the Tobacco nation (Relations des Jésuites, 1658, p. 21). This statement seems fully to justify Mr Hebberd's estimate.

[2] Charlevoix, Journal, vol. III, letter XX, pp. 291, 292.

[3] "Les Malhominy ou Folles Avoines sont ainsi appelez à cause de la rivière où leur village est situé, qui produit une quantité prodigieuse de folle avoine, qu'ils recueillent et ramassent comme nous faisons nos bleds . . . Cette nourriture est saine . . . Ils ne sont pas si bazancz que les autres, et s'ils ne se graissoient pas, ils surpasseroient les Francois en blancheur. Les femmes sont aussi assez jolies et plus humaines que celles de leurs voisins" (Margry, Decouvertes, vol. V, p. 121).

[4] Perrot, Memoire sur les Moeurs . . . des Sauvages, p. 127, gives the population of the principal town of the Maskotin and Miami as 4,000 souls; and Allouez, Relations des Jesuites, 1670, gives it as 800 warriors. See also map of the year 1670–71, in Relations des Jésuites, for distribution of Indian tribes in the Green bay district.

[5] From facts already given, Mr Hebberd seems justified in his estimate of the Indian population in the wild-rice district of eastern Wisconsin about the year 1670. At any rate, the thesis of this paragraph, which Mr Hebberd's facts are here given to substantiate, can hardly be doubted thus far. The population of the wild-rice district of the sources of the Wisconsin, Chippewa, and St Croix rivers, of the eastern branches of the Mississippi river, and the southern and western feeders of Lake Superior is not numbered in his estimate. At a very low figure it had 8,000 souls.

For the disposition of these various tribes see Map of New France (parts of the United States and Canada) 1616–1791, to illustrate The Jesuit Relations and Allied Documents, with volume I of Thwaites' edition of Jesuit Relations.

gator, such a comparison is certainly legitimate. The estimates were not made for any such purpose as that for which they are here used, and there was nothing to bias the mind of the investigator in favor of one part of the territory against another. Where the estimates are large, they are so throughout, and vice versa. Thus their relative value is unimpaired.

TABLE E—*Bouquet's estimate of Indian population in 1764*[1]

A—INDIANS IN THE WILD-RICE DISTRICT

	Warriors	Total population
Près de la Baie des Puants:		
Puans	700	3,500
Folle-Avoine	350	1,750
[Unknown.] Au Sud de la Baie des Puants:		
Mechecouquis	250	1,250
Sakis	400	2,000
Mascoutens	500	2,500
Ouifconfins fur une rivière de ce nom qui tombe dans le Miffiffipi du coté de l'Est	550	2,750
Près des Lacs Supérieur & Michigan:		
Chipwas 5,000		
Ottawas 900		
[These Ottawa and, judging by other estimates, one-fifth of the "Chipwas" [Ojibwa] belong in Michigan; so there are left in the rice districts]	4,000	20,000
Vers les fources du Miffiffipi:		
Sioux des Prairie 2,500		
Sioux des bois 1,800		
[50 per cent of these were probably in the rice district]	2,150	10,750
Grand total		44,500

[1] Bouquet, Relation Historique, p. 144, et seq. Bouquet estimated the warriors as one-fifth of the total population. The column "Total population" is calculated in accordance with this estimate.

B—INDIANS IN THE REMAINING TERRITORY

Powtewatamis, près de St Jofeph & du Detroit	350	1,750
Chipwas (see estimate for these Indians in rice district)	1,000	5,000
Ottawas (see estimate for these Indians in rice district)	900	4,500
Miamis, fur la Rivière de ce nom, qui entre dans la Lac Erie	350	1,750
Delewares (les Loups) fur l'Ohio	600	3,000
Sur l'Ouabache:		
Kickapoux	300	1,500
Ouachtenons [Wea]	400	2,000
Panquichas [Piankishaw]	250	1,250
Les Shawanefes, fur la Scioto	500	2,500
Kaskafquias, ou Ilinois en général, fur la Rivière des Ilinois	600	3,000
Pianria [Peoria]	800	4,000
Wiandots, près du Lac Erie	300	1,500
Total		31,750

TABLE F—*Estimate of the Indian population in 1778, at the outbreak of the Revolution, by a trader who had resided many years in the vicinity of Detroit*[1]

A—INDIANS IN THE WILD-RICE DISTRICT

	Warriors	Total population
Chippewees, about lake Huron, the upper parts of lake Michigan, and then northwest to the Mississippi, 5,000 (see estimate of 1764, Table E)	4,000	20,000
Mineamies, northwest of lake Michigan	2,000	10,000
Soos, about headwaters of the Mississippi, etc	500	2,000
Grand total		32,000

B—INDIANS IN THE REMAINING TERRITORY

Wiondots, in neighborhood of Detroit and Sandusky	180	900
Potowatomies, in neighborhood of St Josephs river, etc	450	2,250
Miamies, in neighborhood of Miami river	300	1,500
Shawanese, on the Wabash and other branches of the Ohio	300	1,500
Delawares and Munsees, between Pittsburgh and Sandusky, on the Muskingum	600	3,000
Chippewees (see estimate of these Indians in the rice district)	1,000	5,000
Grand total		14,150

[1] Schoolcraft, Indian Tribes, vol. III. pp. 560, 561, from manuscripts of James Monroe. This estimate leaves several important tribes out of each district. Only the column headed "Warriors" is given by Schoolcraft. The total population is figured at Bouquet's estimate.

TABLE G—*Lieutenant Z. M. Pike's estimate of Indian population in the wild-rice district in 1806*[1]

	Warriors	Probable total population
1. Chipeways of Sandy lake	45	345
2. Chipeways of Leech lake	150	1,120
3. Chipeways of Red lake	150	1,020
4. Chipeways of St. Croix and Chipeway rivers	104	689
5. Chipeways of other bands generally	1,600	8,000
6. Winnebagoes	450	1,950
7. Menomenes	300	1,350
8. Sues, Minowa Kantong band (which, Pike says (Coues, Pike, I, p. 344), used wild rice very extensively)	305	2,105
9. Sauks	700	2,850
10. Foxes	400	1,750
Grand total		[2]21,179

[1] Pike, Account of Expeditions. . . . Table F, to face p. 66, appendix, part 1. Both columns of figures are given by Pike.

[2] Dr Morse called attention to the following fact in his report to the Secretary of War in 1822, Appendix, p. 375: The proportion of warriors to the whole number of Indians in a tribe varies, or did vary at the time of their support by Indian natural productions. He found that where fish constituted a large part of the subsistence the proportion of men was less. This is but to say that in the presence of fish or nourishing subsistence the population increases more rapidly. Among tribes thus favorably situated women and children will be more numerous—a fact to which early chroniclers gave testimony in the wild-rice district of Wisconsin (women as well as children are relatively more numerous among well-nourished primitive peoples, for it was the female child which was oftenest sacrificed by infanticide in such districts as for the time had a scarcity of subsistence). Morse's figures, which follow, explain themselves:

TABLE H—*Ratio of warriors to whole tribe, influenced by quality of sustenance.*

	Warriors	Whole number	Ratio.
Indians south of Red river	13,229	46,370	1 warrior to 3½ whole population
Winnebagoes	900	5,800	1 warrior to 6½ whole population
Menominies	600	3,900	Do.
Indians in Ohio	753	2,257	1 warrior to 3 whole population
Indians in Missouri	7,560	30,000	1 warrior to 4 whole population
Indians west of Rocky mountains, Columbia river region (ate much fish).			1 warrior to 6 whole population

TABLE I—*Estimate of the Indian population in 1822*[1]

A—INDIANS IN THE WILD-RICE DISTRICT

Chippewas, along south shore of Lake Superior to Mississippi river, 19 settlements (Colonel Dickson, long a resident among them, estimates their number at 10,000)	8,335
Chippewas and Ottawas, south side of Lake Superior, west side of Green bay, down toward Chicago	1,600
Menominees, Menominee and Fox rivers, Green bay, and Lake Winnebago	3,900
Winnebagoes, Lake Winnebago, etc., to Mississippi river	5,800
Sioux of the Mississippi and St Peters rivers, Leaf tribe, on Mississippi, above Prairie du Chien, 600 population	300
Red Wing's band, on Lake Pepin, 100 population	50
Great Village of the Yonktons, both sides of Mississippi, above St Anthonys falls, 1,000 population	500
Total	20,485

B—INDIANS IN THE REMAINING TERRITORY

Pottawattamie (Michigan), Huron river	166
Wyandots (Michigan), Huron river	37
Ottawas (Michigan), shore of Lake Michigan and rivers	2,873
Chippewas (Michigan), Saganau river and vicinity	5,669
Delewares, Munsees, Moheakunnunks, and Nanticokes (Indiana and Illinois) (they were numbered in 1816, but in 1822 were scattered)	1,700
Pottawattamies (Indiana and Illinois), southern end of Lake Michigan	3,400
Chippewas (Indiana and Illinois), with the above Pottawattamies	500
Menominees (Indiana and Illinois), on Illinois river	270
Peorias, Kaskaskias, and Cahokias	36
Kickapoos, central Illinois	400
Kickapoos, Illinois, under treaty to move	1,800
Miamies, Weas, and Eel river Indians, central Indiana	1,400
Sauks, both sides of Mississippi river, between the Illinois and Wisconsin rivers, 4,500	2,250
Foxes, with the above Sauks, 2,000	1,000
Ioways (living with the last two, mostly west of Mississippi), 1,000	250

[1] Dr Morse's report to Secretary of War, 1822, table 1.

B—INDIANS IN THE REMAINING TERRITORY—continued

Wyandots, Ohio	542
Shawnees, Ohio	800
Senecas, Ohio	551
Delewares, Ohio	80
Mohawks, Ohio	57
Ottawas, Ohio	377
Total	24,158

In the above table (I) it will be noticed that of those Indians located on the Mississippi river only one-half of each tribe is put in the list; thus it is granted that half of them may be on the west side of the stream, and so out of the district now considered; while of the Sioux (Dakota) the following bands are located in the rice fields of the St. Peters (Minnesota) river, though they are west of the Mississippi, and did the district considered include the western as well as eastern headwaters of this river, they would be included in the table:

Little Raven's band, 15 miles below St Peters river	500
Pineshow's band, 15 miles up St Peters river	150
Band of the Six, 30 miles up St Peters river	300
Others, at Little Rapids and St Peters	250
Total	1,200

It will also be noticed that no foreign Indians are located in the wild-rice district as yet,[1] while in the other territory a total of at least 1,988 Indians have been received from the East. They include the Munsee, Shawnee, Seneca, Delawares, and Mohawk. Also the Potawatomi, Ojibwa (Chippewa), and Menomini Indians to the number of 4,170 have passed south from the wild-rice district into the other territory. Most, if not all, of the above movements are due to the influence of white men. Yet, notwithstanding this fact, the wild-rice district continued to sustain a much larger population per square mile than the other territory under consideration.[2] Besides the Indians in the wild-rice district, there were for many years hundreds, perhaps thousands, of white men engaged in various ways in the fur trade, who subsisted largely on Indian natural production.

What, then, was the cause of this relatively very dense population?

Mr Hebberd[3] says that the strip of territory above described, along Green bay and Fox river, was "like an oasis in a desert . . . The land was exceptionally rich in all essentials of barbaric plenty."

[1] The Oneida and Stockbridge Indians came from New York to the wild-rice district near Green bay in 1821. Morse's report was printed in 1822, while some of his facts were collected as early as 1820.

[2] Schoolcraft, Indian Tribes, vol. III, p. 584, published in 1853, gives estimates which show the rice district had over 22,000 Indian population, while the remaining territory had less than 21,000. In 1829 (House Ex. Doc. 117, Twentieth Cong., second sess.) the population of the wild-rice district was estimated at 45,500, and of the remaining territory at 21,167.

[3] Hebberd, op. cit., pp. 35, 36.

Charlevoix[1] declared it was the "most charming country in all the world." "The lakes and rivers were full of fish and the forests of game; fuel was plenty; the soil was easy to till and yielded richly. But the crowning attraction, doubtless, was the wild rice marshes, offering an abundant harvest without any labor save that of gathering it in the autumn. There indeed, was the Indian Utopia." Dablon called it "a terrestrial Paradise, but the way to it is as difficult as the way to heaven." It was guarded on the east and north by the Great Lakes, on the west by the immense marshes of the Mississippi system. It was guarded internally by the many prosperous, powerful, contented Indian residents, and externally by the Iroquois on the east and the Dakota on the west, both of whom, because of their fierce and deadly enmity, the Ojibwa called "Adders."

These Indians in the wild-rice district exhibited some social aspects which were quite unique. First, the Winnebago, of Siouan stock, had injected themselves among the Algonquian Indians, and, occupying a strip of land from the Mississippi due east to the foot of Green bay, they lived at peace with the Menomini, Kickapoo, Maskotin, Miami, Potawatomi, and other Indians of the Algonquian stock. Among the rice fields were villages in which even four different tribes dwelt in barbaric harmony. Early chroniclers frequently spoke of the superior physical manhood of the Indians in this district, as well as of their peaceful dispositions. On the one hand, these facts were probably due to the superior quality of their subsistence, as wild rice and fish, and on the other, to the abundance of such subsistence, and to the accompanying fact that many could dwell near together; and also to the fact that they must be more sedentary than the plains Indians, in order to reap their annual crop. The river influence in general would also tend toward peaceful life. Rivers and lakes with their innumerable waterways (such as the wild-rice district exhibits probably more completely than any other section of equal size in America) furnished quick, permanent, and easy means of travel and transportation. Thus, even in canoeing, they would learn the value of mutual help. Canoes were less easily carried long distances by land than were the effects of the plains Indians. Constant connection with wild-rice and maple-sugar areas would lead to villages within easy access. At such village sites loyalty to kinship in the tribe was planted, and out of it grew patriotism for country, as was noticeable when the Indians demanded lands where were situated their rice fields, their sugar orchards, and the graves of their fathers. Thus were laid two corner stones of civilization, viz, the peaceful massing of various tribes, and love for a common country. Here, however, the foundation ceased. Wild rice, which had led their advance thus far, held them back from further progress, unless, indeed, they left it behind them, for

[1] Charlevoix, letter 20.

with them it was incapable of extensive cultivation. Its supply was precarious, and there was no way of making it certain. One year the gathering of 3 or 4 per cent of the crop gave food for a winter's consumption, another year its failure, which might occur for any one of many reasons, threatened the people with starvation. In civilization one class of people at least must have comparative leisure in which to develop short-cut methods of doing old things, of acquiring the traditions of the race, and of mastering new thoughts and methods. Such leisure is impossible with a precarious food supply. But, in spite of these facts, for barbaric people during the period of barbarism, the most princely vegetal gift which North America gave her people without toil was wild rice. They could almost defy nature's law that he who will not work shall not eat.

The facts presented in this section prove that the wild-rice district gave natural support to a larger number of Indians (besides many hundred whites) than did the adjoining territory of nearly five times its area. The facts further prove that wild rice was a chief means which made possible this greater population.

The causes which led to the use of wild rice for food are lost to history. Even tradition, with her many volumes written so full of interesting and valuable facts, gives no information on the subject, except that man's hunger caused him to eat the grain. The best evidence now known is that of the Relations des Jésuites. It has been noticed that Ojibwa Indians and early settlers used wild rice in Canada on Quinto bay and the north shore of Lake Ontario, on the north and west shores of Lake Erie, on the east shore of Lake Huron, and on Georgian bay, as well as on Rice and adjacent lakes in the included point of Canadian territory, now Ontario. The Jesuit fathers lived in Indian wigwams, subsisted on Indian foods, were interested and keen observers and intelligent chroniclers of the entire life of the Indian. Religious, social, and economic life received their careful attention. Yet not one word appears to have been written, either by them or contemporaneous chroniclers, about the use of wild rice in this district.[1] Its first mention is that of 1634 in connection with the Menomini Indians, who even then were called "wild-rice men" by their Algonquian kinsmen. It therefore seems probable that in the Ontario district described above the Indians did not use wild rice until scarcity of game, caused by the fur trade with the whites, drove them to it. The Menomini Indians, however, did depend upon it extensively before such scarcity. What influence the scarcity of game had upon the use of wild rice by the other Indians in the wild-rice district it is impossible to say. However, the Winnebago and several thousand Dakota

[1] Miss Emma Helen Blair, assistant editor of the Thwaites' edition of The Jesuit Relations and Allied Documents (Cleveland, 1896 +, 73 volumes), is the authority for the above statement, made before the volumes were accessible.

Indians of the Siouan stock, and the Miami, Potawatomi, Sauk, Fox, Maskotin, and Kickapoo Indians of the Algonquian stock used rice to a certain extent while still surrounded by small game and even by buffalo. The powerful and numerous Ojibwa Indians came into possession of wild rice during the first period of the fur trade; consequently theirs also was not a choice between starvation or the use of rice. This fact is attested by the Annual Report of the Commissioner of Indian Affairs for 1864, in which year $40,000 worth of furs were gathered. But inasmuch as the rice fields where rice is harvested are annually failing, but where it is not harvested rice still grows luxuriantly, it is probable that in most of the wild-rice district the grain has been gathered only a few hundred years, say from three to five, in such quantities as are shown by the tables on page 1075 and following.[1]

[1] The following is from White Earth agency, Minnesota, in 1894: "A good many on the different reservations have, in their proper seasons, gathered wild rice, blueberries, cranberries, and snakeroot, and made considerable quantities of maple sugar; but these are now mere incidents to their support. The lakes in which the wild rice once grew in such abundant quantities have become almost barren" (House Ex. Doc., 3d sess., 53d Cong., 1894-95, vol. XV, p. 150).

Chapter VII

INFLUENCE OF WILD RICE ON GEOGRAPHIC NOMENCLATURE[1]

Introduction

One of the simplest and most natural reasons for calling a particular locality by a definite name is that that locality is characterized by some one product. This is the way that a great deal of America was named by her primitive people. There is "Trout lake," "Elm lake," "Sugar Camp lake," "Rat lake," "Beaver lake," "Rice lake," "Wolf river," "Big Rice river," "Little Rice river," etc. Such names become fixed by continuous use, and often persist long after the object for which they were given has perished.

The purpose of this chapter is to throw further light upon the extensive habitat of wild rice, and the importance of the grain to the Indian. It is desirable to call attention to the fact that some of the places which now bear the name of "Rice" were not so named by the Indian. It will be noticed that the Siouan name for wild rice is found only west of the Mississippi river, except as it is applied to a few small streams immediately tributary to this river from the east, while the Algonquian names dominate the territory east of the river. The explanation of this is the fact that the Dakota Indians were nearly all driven from the territory east of the river before the white man learned their local geographic names. After that time the Indian languages throughout the wild-rice district east of the Mississippi river were Algonquian, with the single exception of that of the Winnebago, who speak the Siouan language.

The dominance of the French in this district during the period of the fur trade explains the prevalence of French geographic names. The making of English names is going on to-day as in the past. Names referring to wild rice are given because of the prevalence of the grain, or are a translation of an Indian or French term.

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[1] This chapter can be, at best, only a catalogue, and not even an alphabetic one. For purposes of historic and scientific study, if for no other, Indian geographic names ought to be maintained. If the translation of the Indian name is ugly, or not euphonious, the original is often very musical in sound. No one would think of exchanging the Anglicized "Chicago" for its Indian equivalent "Place of the skunk." Certainly no argument need be made for the beauty of the Anglicized Indian names Illinois, Michigan, Wisconsin, and Mississippi. There is generally better reason for maintaining Indian geographic names than there is for replacing them by some fortuitous name. Yet unscientific and senseless as are some names, one acknowledges amusement when he learns that a map is made designating a lake "Uncle —— Lake," in honor of an old gentleman who is a frequent visitor or hanger-around in a State land office.

Sections of Country[1]

No other plant which was used for food by the North American Indian during the period of Indian natural production has stamped its name upon so extensive a section of territory as has the wild-rice plant. About the year 1820 Dr Morse found that "the rice country extended north to the Lake of the Woods, thence along the northern borders of the United States to Lake Superior; and south to the Ouisconsin [Wisconsin] and Fox rivers, and from the last river northerly along the west side of Lake Michigan."[2] One reads that in 1860 this territory to the south of Lake Superior was called by the Canadians *le pays de la folle avoine.* The French Canadians often spoke of these southern lands as *les terres folles* or *la folle avoine* as "Je veux hiverner à *la folle avoine.*"[3]

At about the date of Dr Morse's Report Schoolcraft said that the *Folle Avoine country* included Lac du Flambeau, Ottowa lake, Yellow river, "Nama Kowagun" of St. Croix river, and Snake river.[4] He presented at that time a map which has drawn upon it a "Great trail to the *Folle Avoine country,*" leading southwest from near present Houghton, on Lake Superior, Wisconsin, into the above "Folle Avoine country." As early as 1792 the great Northwest Fur Company designated one of its four departments, the country drained by the St Croix river, the *Folle Avoine department.*[5]

Manomah Isle (Chambers island) in Green bay is given on Farmer's Fourth Sheet or Map of Wisconsin, Iowa, etc, John Farmer (Detroit, 1848).

Manomin county was created in Minnesota in 1859 by Mr Fridley. In 1870 it was changed to Fridley township of Anoka county.[6]

The Upper Peninsula of Michigan has a *Menominee county,* the section of country which is separated from Wisconsin by the Menominee river.

There is a *Menominee township* in Waukesha county, Wisconsin, and a *Manomin township* in Anoka county, Minnesota, while Freeborn county, Minnesota, has a *Riceland township.*

Rice county, Minnesota, is so named out of respect for the Honorable H. M. Rice.

Great Rice M[*arsh*] is located on the south side of St Pierre (Minnesota) river near its junction with the Mississippi river on a map by Carver in 1766 or immediately after.[7] In 1796 this same section of territory was called *Rice Swamp,* and along the north side of the river farther to the west were *Rice Marshes.*[8]

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[1] Names referring to wild rice are in italics. In these names the original form is literally followed.
[2] Morse, Report, appendix, p. 30.
[3] Kohl, Kitchi-Gami, pp. 117, 118.
[4] Schoolcraft, Summary Narrative, appendix, p. 576.
[5] Warren, History of the Ojibways, chapter XXXIV.
[6] Coues, Pike, vol. III, , p. 887, under "Fridley."
[7] Map with Carver's Travels . . . 1766–1768.
[8] Map, London, A. Arrowsmith, January 1, 1796: additions, 1802.

Cities, Stations, etc

Indian villages are very often situated at such places as are best also for the villages of early settlers, as the head of tidal waters and the falls of rivers, where there is a natural stopping place, because there boats must be unloaded and portaged, and there also fish for food are usually plentiful. Besides these reasons, which appeal to both the Indian and the white man, the latter finds there necessary water power. Fertile grassy valleys and elevated table-lands bring to both the Indian and white man valuable advantages for a settlement. The Indian seeks to locate his village in a place of safety near his food supply. The sites of a vast number of our present American cities were previously covered with the village dwellings of the Indian, and a number of these places still bear their earlier Indian names. Many such villages were named from the presence of wild rice.

North Dakota claims a *Wild Rice* station and a *Riceville* station, both in Cass county.

In Michigan, Menominee county has a *Menominee* station and also a *Menominee River* station, while Calhoun county has a *Rice Creek* station and a *Rice Lake* station.

In Ontario, Canada, there is a *Menomonee* station on Parry sound.

Jo Daviess county, Illinois, has a *Menominee* station on Big Menominee creek.

In the preceding chapter it was noticed that the Indians about the St Croix and Chippewa rivers received their name from the abundance of wild rice in their vicinity, and Carver presented a map in 1766–68 which located *Rice Village* of the Ojibwa Indians along the east shore of the St Croix river.

According to a map made at the opening of the nineteenth century[1] there was a *Menomonie's castle* on Fox river, near its mouth, at Green bay, and a *Menomonie town* on the west side of the bay.

Schoolcraft, about the year 1820,[2] mentions two "Indian Spring villages," *Great Rice Place* and *Little Rice Place*, on the Namakgum [Nemacagon] river, a southern tributary of the St Croix. These villages were probably in Washburn county, Wisconsin.

In 1836 a map[3] presents five *Mennomonie villages* on the west shore of Green bay, besides one *Mennomonie village* on Big Mennomonie river [Menominee river], and another *Menonnomonie village* on Fox river, a short way from its mouth, another at the head of Lake Winnebago, and still another farther to the east. Probably one of the above villages is presented in 1837 as *Menominieville* on Fox river.[4]

[1] Map, A. Arrowsmith, London, 1796; additions, 1802.
[2] Schoolcraft, Thirty Years with the Indian Tribes . . . p. 369.
[3] The Tourist's Pocket Map of Michigan . . . by Mitchell, 1836.
[4] Topographical Map of Wisconsin Territory . . . by Lyttle, 1837.

The following year, 1838, Mitchell gives[1] this last village as *Mennomonieville*.

There are in Wisconsin numerous cities and stations which bear their name because of the presence of wild rice in their vicinity, as follows:

Menomonee, in Menomonee township, Waukesha county.

Menomonee Falls, in Menomonee township, Waukesha county.

Menomonie, in Dunn county.

Menomonie Junction, in Dunn county, although this may be the *Menomoniede*, in Dunn county, as given on a map in 1896.[2]

North Menomonie, in Dunn county.

Rice Lake, on Rice lake, in Stanford township, Barron county.

South Rice Lake, on Rice lake, in Stanford township, Barron county.

Rice Lake, in Langlade county.

Riceville, in Washington county.

Nenamonee, on Red Cedar river in Dunn county.[3]

Minnesota also has a small number of rice cities, stations, etc, as follows:

Manomin, in Manomin township, Anoka county (Illustrated Historical Atlas of the State of Minnesota, 1874, Chicago).

Rice Lake, in Dodge county near Rice lake in Clearmont township, Steele county (ibid.).

Rice, in Zumbrota township, Goodhue county (Goodhue County Plat Book, 1894).

Riceford, on Riceford creek, in Spring Grove township, Houston county (Houston County Plat Book, 1878).

Manotnin, at the mouth of Rice river in Ramsey county (Blanchard's Map of the North Western States, Chicago, 1866).

Rice T[ourn], at Sandy lake, probably in present Aitkin county (Map of the United States, etc., John Melish, 1816).

Manannah, on Crow river, in Meeker county (Sectional Map of the Surveyed Portion of Minnesota and the North Western Part of Wisconsin, 1860).

Rice City, south of the preceding in Meeker county (ibid).

Rivers, Creeks, Lakes, and Ponds

Rivers, creeks, lakes, and ponds in the territory under consideration which bear the name Rice, or some of its various synonyms, present unmistakable evidence that at some time such waters grew wild rice (it is, of course, recognized that such a name could have been given in honor of some person, but an effort has been made to exclude all such from the list). The names which follow, therefore, tell their own tale:

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[1] Map of the Settled Part of Wisconsin, Iowa, etc.

[2] The Railroad Map of Wisconsin . . . by D. J. McKenzie, Railroad Commissioner (1896).

[3] Lloyd's New Map of the United States, the Canadas, etc. (1862).

In Ontario, Canada, Trent river, which leads from Rice lake into Quinto bay, is called *Rice R[iver]* in 1817.[1] All other maps examined, both prior to and following the one named, call the stream Trent river.

Menominee river, discharging into Green bay and forming the boundary between the upper peninsula of Michigan and Wisconsin, has had numerous names. Hoffman[2] spells the word *Menomini*. On the same page he also says that the word is from the Indian *Mī'nikâ' nisē'pe*. Verwyst says that the word is a corruption of *manominig*, or *oumanominig*, meaning "wild-rice people."[3] The following various synonyms have been given to this stream:

Menomonee. Blanchard's Map of the North Western States, Chicago, 1866.

Mun-nom-o-nee. Map of Wiskonsan, Charles Doty and Francis Hudson, 1848.

Munnomonee. Map of Wiskonsin Territory compiled from Public Surveys by Captain Cram, 1839.

Mennomonie. Map of the Settled Part of Wisconsin and Iowa, etc., by Augustus Mitchell, 1838.

Big Mennomonie. The Tourist's Pocket Map of Michigan, by J. H. Young, published by S. Augustus Mitchell, Philadelphia, 1836. *Little Mennomonie* river is shown a short distance up the bay; it is probably the present Fort river.

Menomine. Dr Morse's Report, appendix, p. 47.

Monomonie. Map of the United States, by Abraham Bradley, jr., 1804.

Honomonies. Map, States of America, by J. Russell, 1799.

R. des Oumaloumines ou de la folle auvine. Map with Relations des Jésuites, 1670–71.

R. des Oumaloumines. Map, Canada, Louisiane et Terres Angloises, 1755, Le S^{r} D'Anville.

Malomine. A Map of the British Plantations on the Continent of North America, by Henry Overton [circa 1750].

Outmaloumines R. Map, North America, D'Anville, 1752, patronage of Louis, Duke of Orleans.

R. des Oumaloumine ou de la Folle Farine. Map, Le Canada, ou Nouvelle-France, Paris, 1718.

R. des Oumaloumines. Map, Amerique Septentrionale, D'Anville [1746].

The present Red Cedar river, discharging into the Chippeway river, and also the Chippeway river, which in turn empties into the Mississippi at the southern end of Lake Pepin, have at various times borne names synonymous with wild rice. About the year 1850 Warren

[1] Map, "United States of America. No. 55" [1817]. [2] Hoffman, The Menomini Indians, p. 39.
[3] Verwyst, Geographical Names in Wisconsin, Minnesota, and Michigan having a Chippewa Origin, in Wisconsin Historical Collections, vol. XII, p. 393.

called the Red Cedar the *Me-nom-in-ee*,[1] and at about the same time Schoolcraft named that part of Red Cedar river above Rice lake, in Barron county, the *Folle Avoine*.[2] In 1831 it seems that the entire stream was called *Folle Avoine*. In 1848 the river is given as *Menomonie*, and flows through *Manominikan Lake*.[3] This is undoubtedly the *Rice lake* in Barron county, Wisconsin. About 1850 Warren speaks of *Prairie Rice Lake*, or *Mush-ko-da-mun-o-min-e-kin*, or *Lac la Folle* [Prairie lake] as connected with Pellican lake, which discharges into the Red Cedar river.[4] This Prairie lake receives the waters of *Rice Creek*.[5]

In the year 1836 *Pellican Rice Lake* was given on Red Cedar river.[6] This last is probably Lake Chetak, in Barron county.

In 1795 "Chippeway" river is given on a map.[7] Previous to that time it had very generally been called *Malaminican*, as in 1755, 1750, and 1746.[8]

The *Menomonee* river, discharging into Lake Michigan at Milwaukee, Wisconsin, was the *Munomonee* river on a map in 1844.[9] It was *Menominie* river on a map five years previous,[10] and *Mennomonee* on Mitchell's map of 1838;[11] while in 1835 it was given as the *Menominee*.[12]

The river has a tributary which is now called *Menomonee creek*, which, for most of its course, flows in Ozaukee county.

The Fox river in Wisconsin, which discharges into the southern end of Green bay, had a *Lac des Folles Avoines*, according to a French map of 1688.[13] It is the only lake then represented along the course of the Fox river. Another very old French map[14] has three lakes called *Lac des Folles Avoines* on the present Fox river. An expansion of the Fox river 1 mile wide, near its discharge into Lake Winnebago, was called *Lake Menominey* in 1835.[15] The author probably referred to an arm of the present Big Buttes Des Morts lake. This arm in 1836 was called *Monomonie Lake*.[16] The same year it was also referred to as

[1] Warren, History of the Ojibways, p. 309.

[2] Schoolcraft, Summary Narrative, appendix, p. 543.

[3] Farmer's 4-sheet, or Map of Wisconsin, etc., by John Farmer (Detroit, 1848).

[4] Warren, op. cit., p. 308.

[5] Map, The Lake Region of Northern Wisconsin and Michigan, by Ring, Fowle & Co. (Milwaukee, 1893).

[6] Schoolcraft, Thirty Years.

[7] A Map of the Western Part of the Territories belonging to the United States [1795].

[8] A Map of the British and French Dominions in North America, by John Mitchell, 1755; A Map of the British Plantations, by Henry Overton, 1750; Amerique Septentrional, by D'Anville [1746].

[9] Map of Wiskonsan, by Charles Doty and Francis Hudson, 1844.

[10] Map of Wiskonsin Territory, by T. J. Cram, 1839.

[11] Map by Mitchell, 1838.

[12] A Map of a Portion of the Indian Country lying East and West of Mississippi, for the Topographical Bureau, 1835.

[13] Copy by I. A. Lapham from a map in the Chicago Historical Collection, destroyed by fire in 1871, entitled "Une partie de la Carte oe L'Amerique Septentrionale en L'Annee 1688, par J. Baptiste Louis Franquentin HYD DU ROY, a Quebec en Canada."

[14] See map in Winsor, Mississippi Basin, p. 23, reproduced by Marcel from a map in the Marine at Paris.

[15] Featherstonhaugh, A Canoe Voyage, vol. I, p. 174.

[16] Map of the Territories of Michigan and Ouisconsin, by John Farmer, 1836.

Menomomi.[1] In 1850 a *Menomin Lake* was shown on Fox river immediately below the present Moundsville, at the upper end of Buffalo lake.[2]

Menominie river, probably the present Wolf river in eastern Wisconsin, was shown on a map in 1836.[3]

The present Little Eau Plaine river, a tributary of the Wolf river between Marathon and Portage counties, Wisconsin, was once known as *Ma-no-min a-kung-a-kauy Se-be* or *Rice Stalks* river.[4] It also flows through a *Rice Lake*.

Between 47° and 48° north latitude a river flows from the east into the Red river of the North which has been noted for more than one hundred years for its production of wild rice. On recent maps it is known as *Wild Rice River*. This river also has a large tributary called *South Branch Wild Rice River*, which in 1836 was said to drain *Lake la Folle Avoine* between Ottertail lake and the sources of the Crowing (Crow Wing) river.[5] In 1885 Bell wrote[6] that at one time the *Wild Rice* river was known as the *Menomone*, and also as the *Pse* river. In the years 1861, 1848, and 1843 the river was called *Manomin* or *Wild Rice River*.[7] On map of 1857 this stream was called *Mamonia River*.[8] In 1836 it was known as *la Folle Avoine*.[9] In 1822 Dr Morse called it *Wild Oats Cr.*,[10] while Beltrami in 1828 wrote it *Wild Oats* river.[11] According to a map of 1816, *Wild Oats Cr*[*eek*] and *Rice Straw Cr*[*eek*] both discharge into Red river of the North from the east, between 47° and 48° north latitude. It is quite probable that these refer to the *Wild Rice River* and *South Branch Wild Rice River*, as these two streams join not far from where their waters enter the Red river of the North. At the beginning of the nineteenth century the stream was called *Rice Straw* river, and immediately north of it is a *Wild Rice* river which flows into Red Lake river, which, in turn, empties into the Red river of the North.[12] This *Wild Rice* river last spoken of is probably the Clear Water river rising in Mitcha or Big Boulder lake on Mitchell's map.

Another historic wild rice producing river flows into the Red river of the North. This second one discharges near Fargo, North Dakota,

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[1] The Tourists Pocket Map of Michigan, Mitchell (Philadelphia, 1836).

[2] Map, The State of Wisconsin, Lapham (Milwaukee, 1850).

[3] Farmer, Map of the Territories of Michigan and Wisconsin, 1836.

[4] Wisconsin Historical Collections, vol. I, p. 120.

[5] Map of the Territory of Wisconsin, by Burr, 1836.

[6] Chas. N. Bell, Historical Names and Places, in Trans., Manitoba Hist. and Sci. Soc., vol. XVII, 1884–85, p. 5 (Winnipeg, 1885).

[7] Map of the United States of North America, supplement to Illustrated London News (June 1, 1861); map, United States of North America, by Sherman & Smith (New York, 1848); map, Hydrographical Basin of the Upper Mississippi River, Nicollet, 1843.

[8] A New and Complete Railroad Map of the United States, Wm. Perris (New York [1857]).

[9] Map of the Territory of Wisconsin, by Burr, 1836.

[10] Map with Morse's Report.

[11] Beltrami, Pilgrimage, vol. II. See map of Mississippi river.

[12] The second section of the map entitled "London, A. Arrowsmith, January 1, 1796. Additions 1802."

and flows from the southwest. Unlike the river just considered, this one bears the Siouan name. In 1861 it is found as *Wild Rice* river.[1] In 1850 it was called *Psau* or *Wild Rice*,[2] while in 1848 and 1843 it was given as *Psihu* or *Wild Rice* river.[3] A map of 1838 gives the stream as *Pse* river.[4]

During the year 1836 two synonyms are found, the word being written both *Pse*[5] and *Ipse*.[6] Beltrami named this stream, as well as the one on the east side of the Red river of the North, the *Wild Oats* river,[7] the one from the west being called *Sau-Watpa*. *Watpa'* is the Dakota word for river.[8] Keating said that in 1823 the traders called both of these tributaries of the Red river of the North *Wild-rice*, or *Folle Avoine*.[9] Tanner calls the one which discharges from the west the "Gaunenoway," and Coues says that "Gaunenoway stands for *Manominee*."[10]

Besides the Red Cedar river, which discharges into the Chippeway and through it into the Mississippi, and both of which have borne names synonymous with wild rice, other waters will be mentioned which feed the upper Mississippi, all of which bear the wild rice cognomen.

In 1892 there was a *Manomin* river flowing into the Mississippi from the east. It drains both *Rice Lake* in Aitkin county, Minnesota, and a *Manomin* lake near at hand, while immediately north of it is another *Rice* lake draining into Sandy lake at Aitkin county.[11] *Wild Oats* river is the name given this stream in 1819.[12] About fifteen years previous Lewis and Clarke called it *Wild Oats R[iver]*.[13] It enters the Mississippi river from the east between degrees 46 and 47 north latitude. This is probably the *Manomin* river of the map "Hydrographical Basis . . . " made in 1843. Beltrami wrote that he named two lakes, some 5 or 6 miles in circumference, near the source of the Mississippi. *Manomeny-Kany-aguen*, because, as he explained it, they were full of wild rice.[14] *Psin-ta-wak-pa-dan* or *Little Rice River* is now called *Rice Creek*, and empties into the Mississippi from the east a few miles north of Minneapolis.[15] *Pinidiwin* or *Manomin* or

[1] Map of the United States of North America, supplement to Illustrated London News (June 1, 1861).
[2] General-Karte Der Vereinigten Staaten von Nord-Amerika, by Albrecht Platt, 1850 (after T. Calvin Smith's New York Karten).
[3] United States of America, by Sherman and Smith (New York, 1848); map, Hydrographical Basin of the Upper Mississippi River, after Nicollet (1843).
[4] Map of the Settled Part of Wisconsin. Mitchell, 1838.
[5] Map of the Territories of Michigan, by Farmer, 1836.
[6] Map of the Territory of Wisconsin, by Burr, 1836.
[7] Beltrami, op. cit.
[8] Ibid., vol. II, 337.
[9] Keating, Narrative, vol. II, 37,
[10] Coues, New Light, vol. I, note, p. 147.
[11] Plat Book of Morrison county (1892).
[12] Warden, United States of North America, vol. I, p. 117 (Edinburgh, 1819).
[13] Map in Lewis and Clarke, Travels.
[14] Beltrami, op. cit., vol. II, p. 408.
[15] Gordon, op. cit., p 58.

Rice Lake discharges its waters into the Mississippi by a short thoroughfare in section 24, township 146 north, range 35 west in Minnesota.[1]

In 1879 Aitkin county, Minnesota, had three *Rice* lakes northeast of Mille Lacs. In one place the northernmost one is called *Manoman*, while again the westernmost one is *Manomin*.[2]

Coues speaks[3] of the Pinnidiwin or Carnag or De Sota river. It is the west branch of the source of the Mississippi, and flows through *Lake La Folle*, *Rice*, or *Manomin*. Rand and McNally now call this waterway *Lake Monomina*. Schoolcraft speaks of the lake as *Lac la Folle*, and *Monomina* from *Monominakauning* (place of wild rice).[4]

The Mississippi also drains *Manomin L*[*ake*] between Wakomite creek and "Cow Horn," north of Itasca lake.[5] There was also a *Rice* river flowing into the Mississippi from the east, a short distance above St. Paul, in 1856.[6] It is called *Rice creek* in 1874, while Coues later calls it *Rice* or *Manomin cr*[*eek*].[7]

Neill mentioned Otonwewakpadan or *Rice creek* in Minnesota as one of the two places where, traditionally, the Dakota first planted maize.[8] The same writer in translating the French author of the Memoir of the Sioux spoke of *Wildrice Lake* 15 leagues below Rivière au Serpent (Snake river), Minnesota. It may be the present *Rice Lake* in northeastern Anoka county. Dr Morse mentions *Pauc-quau-me-no-min-ic-con* or *Rice Lake* as being 20 or 25 miles south of Sandy lake, Aitkin county, Minnesota.[9]

Coues says that a feeder of Sandy lake near Leech lake, Minnesota, which flows in at the southernmost end is called "Sandy, Sandy Lake, or *Rice Lake R*[*iver*]". This river has a branch from *Manomin* or *Rice Lake*, and either the branch or the entire river is the *Menomeny-sibi* or *Wild Oats* river of Beltrami, according to Coues.[10] *Rice Lake* in Little Falls township, Morrison county, Minnesota, is fed by *Rice creek* and discharges into the Mississippi by way of the Platte river.[11]

In the year 1856 a *Rice Lake* was drained by Le Suer [Le Sueur] river into Minnesota river from the south.[12] Seven years prior to this the lake is called *Psah L*[*ake*] and is drained by *Psah R*[*iver*] into Le Sueur river and then into the Minnesota. The same map[13] presents

[1] Coues, Botanical Gazette, December, 1894, p. 506.
[2] Map, Department of the Interior, General Land Office, state of Minnesota, 1879.
[3] Coues, Pike, vol. I, p. 163, note.
[4] Schoolcraft, Summary Narrative, pp. 248, 249.
[5] Minnesota Historical Collections, vol. VIII, part 2 (1896), p. 236, pl. IV.
[6] Map of southern Minnesota and part of Wisconsin, by Harris, Cowles & Co. (Boston, 1856).
[7] Coues, Pike, note 6, p. 94.
[8] Neill, Indian Trade, in Minnesota Historical Society's Collections, vol. I, p. 32.
[9] Morse, Report, appendix, p. 35.
[10] Coues, Pike, note 49, p. 137.
[11] Morrison County Plat Book, 1892.
[12] Map of southern Minnesota by Harris, Cowles & Co., Boston, 1856.
[13] Map of the Territory of Minnesota, exhibiting route of the expedition to the Red river of the north, 1849, by John Pope.

a *Psah L*[*ake*] just north of the Minnesota river where *Rice* marshes were located on earlier maps. Coues explains that *Rice River* near Brainer county, Minnesota, is the Nagajika creek of Nicollet.[1] *Big Rice River* and a *Little Rice River*, in Oneida county, Wisconsin, discharge their waters into the Wisconsin river.

Jo Daviess county, Illinois, has a *Big Menominee creek*, which is a tributary of the Mississippi river at "Nine-mile island" or "Number 232," and this creek is also fed by a smaller one called *Little Menominee creek*.

A *Rice* creek discharges into Kalamazoo river at Marshall, Michigan.

It is believed that the following bodies of water, mostly lakes, receive their names from wild rice. Their location is given as accurately as is possible, but no claim is made for the identification and exact location of all the places previously named in this chapter, in consequence of which some of them may be unavoidably repeated in the present list:

Poygan Lake, Winnebago county, Wisconsin, from the Menomini word *powahĕcänně*, or "threshing [wild-rice]."

Rice Lake, Ontario, Canada, between lake Simcoe and Quinto bay.

Rice Lake, Newago county, Michigan, Grant township.

Rice Lake, the head of Shell river, a tributary of the St Croix, is given by Warren, History of the Ojibways, p. 164.

Rice Lake, Forest county, Wisconsin, township 35, range 12, near Crandon.

Rice Lake, Forest county, Wisconsin, township 35, range 11, near Crandon.

Rice Lake, Oneida county, Wisconsin, township 36, range 7 east (Pocketbook Map of Oneida, Vilas, and range 4 of Iron counties, Wisconsin, E. S. Shepard, Rhinelander, Wisconsin, [circa 1898]).

Big Rice Lake, Oneida county, Wisconsin, township 36, range 6 east (ibid.).

Rice Lake, Vilas county, Wisconsin, township 41, range 8 east (ibid.).

Rice Lake, Vilas county, Wisconsin, township 39, range 10 east (ibid.).

Rice Lake, Vilas county, Wisconsin, township 42, range 7 east (ibid.).

Scattering Rice Lake, on line between Forest and Vilas counties. It is drained by the Wisconsin river (ibid.).

Little Rice Lake, Vilas county, Wisconsin, between the triangle of lakes, Boulder lake, Fish Trap lake, and Trout lake. *Rice creek* is connected with Big lake, which lies immediately west of Little Rice lake (Map of the Famous Hunting and Fishing Grounds embraced in the Lake Region of Michigan, Poole Bros., Chicago, 1895).

Rice Lake, Polk county, Wisconsin, Alden township (Polk County Plat Book, 1888).

Rice Lake, Polk county, Wisconsin, Milltown township (ibid.).

Rice Lake, Polk county, Wisconsin, West Sweden township (ibid.).

[1] Coues, Pike, note 41, p. 131.

Rice Lake, Dane county, Wisconsin, Albion township (Dane County Atlas, 1873).

Rice Lake, Barron county, Wisconsin, Stanford township (Barron County Plat Book).

Opukwa, or *Rice Lakes* (Wis. Hist. Colls., vol. I, p. 75).

Rice Lake, Ottertail county, Minnesota, Rush Lake township (Ottertail County Plat-Book, 1884).

Rice Lake, Ottertail county, Minnesota, Hobart township (ibid.).

Rice Lake, Ottertail county, Minnesota, Friberg township (ibid.).

Rice Lake in the city limits of Minneapolis (An Illustrated Historical Atlas of the State of Minnesota, Chicago, 1874).

Rice Creek, Washington county, Minnesota, Oneka township (ibid.).

Rice Lake, Scott county, Minnesota, Spring Lake township (ibid.).

Rice Lake, Carver county, Minnesota, Chandhassen township (ibid.).

Rice Lake, Carver county, Minnesota, between Waconia and Benton townships (ibid.).

Rice Creek, Blue Earth county, Minnesota, Sterling township, discharges into Maple river (ibid.).

Rice Lake, Blue Earth county, Minnesota, McPherson township (ibid.).

Rice Lake, Le Sueur county, Minnesota, Sharon township (ibid.).

Rice Lake, Rice county, Minnesota, Shieldsville township (ibid.). This lake may be named after the Honorable H. M. Rice, as is the county.

Rice Lake, Steele county, Minnesota, Havana township (ibid.).

Rice Lake, Waseca county, Minnesota, Janesville township (ibid.).

Rice Lake, Waseca county, Minnesota, on the border between Blooming, Grove, and Woodville townships (ibid.).

Rice Lake, Freeborn county, Minnesota, Riceland township (ibid.).

Rice Lake, Faribault county, Minnesota, Dalevan township (ibid.).

Rice Lake, Faribault county, Minnesota, Foster township (ibid.).

Rice Lakes, Stearns county, Minnesota. These are several large lakes in Eden, Lake, and adjoining townships (ibid.).

Rice Lake, Mille Lacs county, Minnesota, Greenbush township (ibid.).

Rice Creek, Anoka county, Minnesota. It flows into the Mississippi river from the east (ibid.).

Rice Lake, Anoka county, Minnesota, between Bethel and Linwood townships (ibid.).

Rice Creek, Kanabec county, Minnesota. It discharges into the Snake river in the southeastern part of the county (ibid.).

Rice Lake, Isanti county, Minnesota, Maple Ridge township, from which flows the *Rice Creek* just cited (ibid.).

Rice Lake, Todd county, Minnesota, Hartford township (ibid.).

Rice Lake, Morrison county, Minnesota (ibid.).

Rice Lake, Wright county, Minnesota, Franklin township (ibid.).

Big Rice Lake, Cass county, Minnesota (ibid.).

Rice Lake, Hennepin county, Minnesota, Eden Prairie township (ibid.).

Wild Rice Lake, St. Louis county, Minnesota, northeast of Duluth (ibid.).

Rice Lake, St. Louis county, Minnesota (ibid.).

Rice L., a pond more than 1 mile long, at the north end of Little Lake Winnibigoshish (Coues, Pike, vol. 1, note, p. 325).

Rice Lake, or Lake Ann, an expansion of Brown creek [Minnehaha] (ibid., note 4, p. 90).

Rice L., near Pokegama, Minnesota (ibid., note 54, p. 147).

This chapter presents over one hundred and sixty places which have borne a name synonymous with wild rice. Of these some few are doubtless duplicates, though great care has been exercised to avoid such.[1]

When it is called to mind how the North American Indians and those following them were led to name a certain place by its characteristic product, a better perspective is obtained for viewing the importance of wild rice as a food-supply during the period of aboriginal production.

After a cursory comparative study it is believed that more geographic names have been derived from wild rice in this relatively small section of North America than from any other natural vegetal product throughout the entire continent.

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[1] The material for this chapter has been collected from books, maps, and atlases. It is often impossible to locate the places mentioned in the first class of sources. Old maps are not detailed or authentic enough for strict accuracy. The counties of northern Wisconsin and Minnesota have not been surveyed so that accurate county atlases may be made, while in all of the States which grow wild rice few atlases have been made. Inasmuch as it is the smaller lakes and ponds which bear wild rice most abundantly, there are many bodies of water locally bearing a name for wild rice which the present maps do not show.

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WILLIAMS, Thomas A. Grasses and forage plants of the Dakotas.

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LIST OF CORRESPONDENTS

ASH, Benjamin C., Lower Brulé, South Dakota, February 24, 1899 (agent of Lower Brulé agency, South Dakota).

BARTON, N. W., Baltimore, Maryland (about December 10, 1898).

BEGG, Magnus, Fort Frances, Ontario, Canada, January 17, 1899 (agent of the Coucheeching agency, Ontario, Canada, about Rainy lake).

BESSEY, Charles E., Lincoln, Nebraska, December 9, 1898.

BEYER, George E., New Orleans, Louisiana, December 19, 1898.

BINGENHEIMER, George H., Fort Yates, North Dakota, November 15, 1898 (agent of Standing Rock Agency, North Dakota).

BISHOP, W. H., Newark, Delaware, December 12, 1898.
BLANKINSHIP, J. W., Bozeman, Montana, December 12, 1898.
BRANNON, Melvin A., Grand Forks, North Dakota, December 10, 1898.
BRAY, William L., Austin, Texas, December 13, 1898.
CAMPBELL, John C., Athens, Georgia, April 13, 1899.
CLAPP, William R. (Major, U. S. A.), Pine Ridge, South Dakota, November 12, 1898 (agent of Pine Ridge Agency, South Dakota).
CLINTON, G. P., Urbana, Illinois, May 3, 1899.
COUES, Elliott (M. D.), Washington, District of Columbia, February 16, 1899.
CRANDALL, C. S., Fort Collins, Colorado, December 12, 1898.
CURRIE BROTHERS, Milwaukee, Wisconsin, May 6, 1899.
DAVY, J. Burtt, Berkeley, California, December 6, 1898.
DODSON, W. R., Ann Arbor, Michigan, November 12, 1898.
EVANS, A. Grant, Muscogee, Indian Territory, April 25, 1899.
EVANS, Alexander W., New Haven, Connecticut, January 3, 1899.
FERNALD, M. L., Cambridge, Massachusetts, December 12, 16, 1898.
GARMAN, H., Lexington, Kentucky, December 17, 1898.
GEORGE, D. H., Keshena, Wisconsin, December 8, 1898 (agent of Green Bay agency, Wisconsin).
GETCHELL, Fred O., Fort Totten, North Dakota, November 10, 1898 (agent of Devils Lake agency, North Dakota).
GHEEN, Stephen, Nett Lake, Minnesota, November 15, 1898 (Government farmer, Nett Lake reservation, Minnesota).
GILFILLAN, J. A.,[1] White Earth, Minnesota, May 4, 1896.
GOODRICH, D. L., Hampton, Virginia, December 10, 1898.
GRANT, A. J., Plymouth, New Hampshire, December 22, 1898.
HARDING, John W., Greenwood, South Dakota, November 10, 1898 (agent of Yankton agency, South Dakota).
HARVEY, F. Z., Orono, Maine, December 9, 1898.
HENDERSON, L. F., Moscow, Idaho, December 11, 1898.
HILLMAN, F. H., Reno, Nevada, December 12, 1898.
HITCHCOCK, A. S., Manhattan, Kansas, April 24, 1899.
HOLFERTY, G. M., Cincinnati, Ohio, April 17, 1899.
HOWARD, O., Salt Lake City, Utah, December 13, 1898.
JESUP, Henry G., Hanover, New Hampshire, December 13, 1898.
JOHNSON, Nathan P., Sisseton agency, South Dakota, November 19, 1898 (agent of Sisseton agency, South Dakota).
JONES, L. R., Burlington, Vermont, December 27, 1898.
JONES, Marcus E., Salt Lake City, Utah, December 23, 1898.
LAKE, E. R., Corvallis, Oregon, December 30, 1898.
LANGLOIS, A. B., St. Martinsville, Louisiana, November 21, 1898.
MCBAIN, Samuel, Knoxville, Tennessee, December 9, 1898.
MCCHESNEY, Charles E., Rosebud, South Dakota, November 12, 1898 (agent of Rosebud agency, South Dakota).
MCNEILL, Jerome, Fayetteville, Arkansas, December 21, 1898.
MACFARLANE, John M., Philadelphia, Pennsylvania, December 12, 1898.
MACKAY, A. H., Halifax, Nova Scotia, May 1, 1899.
MACLOSKIE, G., Princeton, New Jersey, December 15, 1898.
MARKLE, J. A., Birtle, Manitoba, Canada, November 21, 1898 (Indian agent of Western Manitoba, Canada).
MARTINEAU, H., Portage la Prairie, Manitoba, Canada, November 18, 1898 (Indian agent in the Lake Manitoba Indian inspectorate).
MATHEWS, C. W., Lexington, Kentucky, December 15, 1898.

[1] Kindness of Mr Gardner P. Stickney, Milwaukee, Wisconsin.

MATSUMURA, J., Tokyo, Japan, December 6, 1898 (professor of botany at the Imperial University).

MAY, L. L., & Co., St. Paul, Minnesota, May 10, 1899.

MILL, P. H., Auburn, Alabama, May 1, 1899.

MOORE, C. W.,[1] Chetek, Wisconsin, April 29, 1896.

MOTTIER, D. M., Bloomington, Indiana, December 26, 1898.

MOTZFELDT, J., Pelican Lake, Wisconsin, December 3, 1898. Mr Motzfeldt has lived about forty years in the above district.

NELSON, Aven, Laramie, Wyoming, December 12, 1898.

NEWCOMBE, F. C., Ann Arbor, Michigan, December 9, 1898.

OPPEL, Charles C.,[1] Tower, Minnesota, May 4, 1896.

PADDOCK, L. A., Grass Lake, Illinois, January 20, 1899. Mr Paddock has lived sixty years on Grass lake, where there are 2,000 acres of *Zizania aquatica*.

PATTERSON, Roger, Odanah, Wisconsin, November 23, 1898 (Government farmer, Bad River reservation, Wisconsin).

PHALON, Peter, Cloquet, Wisconsin, December 27, 1898 (Government farmer, Fond du Lac reservation, Wisconsin).

PITHER, Robert J. N., Rat Portage, Ontario, Canada, December 5, 1898. Mr Pither was in the Hudson Bay Company twenty-five years and Indian agent in the Coucheeching Agency district of Ontario twenty-five years.

POKAGON, Simon (Chief), Hartford, Michigan, November 10 and 16, 1898. Simon Pokagon was the last chief of the Potawatomi Indians. He died at his home in Hartford January 27, 1899.

RAMALEY, Francis, Boulder, Colorado, December 9, 1898.

REID, James G., Cheyenne River agency, South Dakota, November 11, 1898 (agent of Cheyenne River agency, South Dakota).

RICHARDS, Thomas, Elbowoods, North Dakota, November 17, 1898 (agent of Fort Berthold agency).

RODMAN, N. D., Reserve, Wisconsin, November 11, 1898, and February 14, March 1, 1899 (Government farmer, Lac Courte Oreilles reservation, Wisconsin).

ROLFS, P. H., Lake City, Florida, December 10 and 19, 1898.

RUMSEY, W. E., Morgantown, West Virginia, December 17, 1898.

SAUNDERS, D. W., Brookings, South Dakota, January 4, 1899.

SCRIBNER, F. Lamson-, Washington, District of Columbia, April 25, 1899.

SHIMEK, B., Iowa City, Iowa, December 7, 1898.

STEPHENS, J. H., Crow Creek, South Dakota, November 16, 1898 (agent of Crow Creek agency, South Dakota).

STUNTZ, A. C., Monroe, Wisconsin, November 24, 1898. Mr Stuntz was among the Ojibwa Indians in northern Wisconsin from the year 1848 until 1882.

SUTHERLAND, John H., White Earth, Minnesota, December 14, 1898 (agent of White Earth agency, Minnesota).

TOURNEY, J. W., Tucson, Arizona, December 7, 1898.

TRACY, S. M., Agricultural College P. O., Mississippi, December 13, 1898.

TURNER, James G. (M. D.), L'Anse, Michigan, December 7, 1898 (agent of the Mackinac agency, Michigan).

TUTTLE, A. H., Charlottesville, Virginia, November 20, 1898, and January 19, 1899.

WHEELER, C. F., Lansing, Michigan, December 14, 1898.

WILLIAMSON, John P. (Reverend), Greenwood, South Dakota, November 30, 1898, and January 21, 1899. Mr Williamson and his father before him have been lifelong missionaries to the Dakota Indians.

WILSON, H. U., Chapel Hill, North Carolina, February 15, 1899.

WOOTON, E. O., Mesilla Park, New Mexico, December 22, 1898.

[1] Kindness of Mr Gardner P. Stickney, Milwaukee, Wisconsin.

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